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TREATISE

OF

Continual FEVERS:

In FOUR PARTS.

To which are added,

Medicinal OBSERVATIONS:

In THREE BOOKS.

Wherein are enumerated,

The DIAGNOSTICKS, PROGNOSTICKS, and EVENTS of the ſeveral DISEASES incident to *Human Bodies.*

By *JODOCUS LOMMIUS.*

Tranſlated from the *Latin*

By THOMAS DALE, *M. D.*

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TO

Mr. *Samuel Dale.*

Dear SIR,

AVING with ſome ſmall Succeſs tranſlated into *Engliſh* thoſe Writings of the late learned Dr. *John Freind*, which relate to the Practice of Phyſick; I was encouraged to take the ſame Pains with that incomparable Writer, *Jodocus Lommius.* This Author, if we conſider either the Excellency of his Matter, or the Elegance of his Stile, may challenge the Preheminence of almoſt all our medical Writers, ſince *Celſus*: Which Opinion our polite Countryman

juſt mentioned ſeemed to entertain of him, by propoſing and encouraging a new Edition of his Works, at a Time when they were in a manner diſregarded and forgot, and recommending him to the World with the Elogium of *Auctor maximè Latinus.*

The firſt Part of this Work, which I have now the Honour of inſcribing to you, is a Treatiſe concerning the *Cure* of *continued Fevers.* This Diſeaſe our Author obſerved to be generally more frequent, eſpecially in the Summer-Seaſon; and to carry off more Perſons, in the very Flower of their Age, than perhaps any one Diſtemper beſides; and withal farther obſerved, that the common Method of treating it was extremely abſurd and prepoſterous. The Practice of many in his Time, as he himſelf tells us, was, *on the firſt Day to looſen the Belly, on the next to take away a Pound and half of Blood by opening a Vein, on the third to give a gentle purging Bolus, on the fourth*

to throw up a Clyſter, on the fifth to give a brisk Purge, and on the ſixth, or ſeventh, when the Symptoms were outrageous near the State of the Diſeaſe, *to open a Vein again.* In this Manner they proceeded, even in that very Fever which would of itſelf terminate within ſeven Days; and were ſo far from aſſiſting and relieving Nature in her Conflicts with the Diſeaſe, that they rather diſturbed her Operations, and precipitated the Deſtruction of the Patient. Upon theſe Conſiderations he was induced to oblige the World with his Sentiments upon this Subject; which the Reader will find to be grounded, not on any vain and fanciful Hypotheſis, but on Reaſon and common Senſe, as well as ſupported with the Authority of the Ancients, and confirmed by his own long Practice and Experience. His Method of Cure is very remarkable for its Simplicity, as turning chiefly upon *Bleeding*, duly and ſeaſonably adminiſtred,

and a *cooling* and *diluting* Diet: As to the former, we have here the Laws of opening a Vein, in this Kind of Fevers, more explicitly delivered than perhaps in any other Author, either ancient or modern; and as to the latter, what great and conſiderable Effects ſuch a Kind of Diet may have in the moſt dangerous Diſeaſes, is plain from that invaluable Treatiſe, which the Divine *Hippocrates* has left us upon this Subject. Farther, as he profeſſes himſelf the Servant and Aſſiſtant to Nature, whatever Remedies he may at any time find neceſſary to exhibit, are always ſuch as are the moſt efficacious, and withal common and eaſy; and he inveighs very ſeverely againſt loading the Patient with a *Farrago* of Medicines.

The other Part of this Volume contains three Books of *Medicinal Obſervations*, wherein we are taught not only to know the ſeveral Signs and Symptoms of Diſeaſes, but alſo to foretel

foretel their ſeveral Changes and Events. This is a Work highly uſeful and ſerviceable, not only to the Phyſician but to the Patient: For ſince the Art of healing Diſeaſes is improvable only by Obſervation, and the firſt Step towards curing any Diſtemper is a perfect Knowledge of it; an intimate Acquaintance with this Part of Phyſick, is the only Means of eſtabliſhing the Reputation of the former, and the Security of the latter. Of this Opinion was, that great Light and Father of our Faculty, *Hippocrates:* Who not only recommends it to others, to be very careful to *tell* what is paſt, to *know* what is preſent, and to *foretel* what is to come; but was himſelf the greateſt Maſter, and has furniſhed us with the moſt exquiſite Diſcourſes upon this Branch of our Art, that the World ever was, or is in haſte likely to be bleſſed with.

HAVING ſaid thus much of the Work itſelf, it may not be amiſs to make ſome Reply to the common Objection againſt

Translations of this Kind; namely, that they greatly tend towards the Increase of *Quacks* and *Empiricks*, with whom, God knows! we abound enough already. This Objection, I confess, may be strongly urged against many Writers; particularly those whose Works are crouded with *Recipe's*, and those in *English*, which is almost all the Stock that is requisite to fit out a Quack; who, from the Conceit of his being well furnished with Tools, immediately imagines himself an Artist, and that with just the same Reason, as a Bookseller may fancy himself as learned as the greatest Scholar in the Nation, because he hath as many, or perhaps more Books in his Shop than the other in his Study. But, that this Charge will lie against any Treatises, I have hitherto translated, I do not readily apprehend; in as much as these are not stuffed with Receipts, and that some Degree of Knowledge in Physick is previously required towards the un-

underſtanding them. Beſides, ſince it has been the prevailing Cuſtom for ſome Years among our Phyſical Writers to appear in *Engliſh*, and if perchance any Thing ſhould be publiſhed in *Latin*, it is almoſt ſure to be done into the former by one Hand or other, I think a Perſon may employ his Time much more advantageouſly both to himſelf and to the Publick, by digging for Gold and Silver in ſuch Mines as theſe, that is, in tranſlating of a *Freind* or a *Lommius*, than by obtruding ſuch crude and indigeſted Notions upon the World, as the Preſs every Day teems with. One might be led to hope from the Number of Pieces which are continually publiſhed, that Phyſick would in a ſhort Time be brought to its utmoſt Perfection; but ſuch is our Misfortune, that not one in a hundred is worth the Time a Man ſpends in peruſing them, and all the Matter that may be picked out of them, either for informing of the Underſtanding, or improving

proving the Art, might be wrote upon the *Back* of a *Card*, if not the Author's *Thumb-nail*. And if we may judge of their Skill and Abilities in Practice from their Writings, we may conclude their Talents for both to be equal, and that thoſe unhappy Perſons who truſt their Lives in ſuch Hands, may be truly ſaid *Cœlum petere Stultitiâ*.

But I ſhall forget the Complaint I make of other People's Scribbling, while I thus far perſue my own. However, Sir, if what I have alleged be not thought a ſufficient Vindication, I may venture to aſſure the Publick, I ſhall not offend above once more in the like Way, and that in Obedience to your Commands, by tranſlating into *Engliſh* your incomparable *Pharmacologia*. And this gives me a fair Opportunity of complimenting you upon the extraordinary Reputation that Work has always obtained among the beſt Judges, of which, the ſeveral Editions, both at home and abroad, are a ſufficient

Teſti-

Teſtimonial, and the greateſt Panegyrick I can ſuggeſt. Although this Hiſtory of Drugs has been hitherto eſteemed the moſt perfect of the Kind, yet I cannot avoid telling the World, that in your Retirement from the Fatigues of a long Practice, you now beſtow the greateſt Part of it upon reviſing, correcting, and enlarging it; ſo that in a few Months, we may hope to ſee a new Edition, enriched with all the later Diſcoveries in the *Materia medica*. Neither have your Studies been alone confined to natural Science, of which you are confeſſedly one of the greateſt Maſters of the Age; but extended to a thorough Knowledge of Civil Matters, and Antiquities; whereof you have given us abundant Proof in your *Hiſtory* of *Harwich*. But in a Subject of this Delicacy your Modeſty will not ſuffer me to proceed farther: I ſhall therefore, Sir, only beg your kind Acceptance of this Addreſs, as a Token

ken of my Duty and Affection, and a grateful Acknowledgement of the many Favours you have conferred upon,

SIR,

Your affectionate Kinſman,

And obliged humble Servant,

THOMAS DALE.

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OF THE

CURE

OF

Continual Fevers.

Sect. I.

Which contains their Beginning.

CHAP. I.

CONTINUAL Fevers are attended with the greateſt Dangers, and very deſtructive to human Life, waſting the Strength of the Body by perpetual Heats, and Attacks of the moſt violent Symptoms, and carrying off (which can hardly be ſaid of any other Diſtemper) the major Part of Mankind in the Midſt of their Days and

Vigour. Beſides, their Attack is ſo very ſudden, that it eaſily expoſes both the Phyſician and Patient to the moſt dangerous Errors. And it is to be remarked, that theſe Fevers take their Riſe, ſometimes from all the Humours, at other Times from a particular one only, putrified within the larger Veſſels. Thoſe of the former Kind, are by the *Moderns* called *Continent*, and the other *Continued*. But ſince in both Caſes the Feveriſhneſs is continued, we have contented ourſelves with one Word, and given to both the Name of *Continual Fevers*. The genuine Method of Cure is to remove the Cauſe of the Diſorder, and likewiſe to abate that Heat which is excited thereby; wherefore that Plenitude of Humours, which is generally an Attendant in theſe Caſes, muſt be leſſened by Evacuations; in as much as this very Thing, may both cauſe and maintain a Putridneſs, the Perſpiration being interrupted by the Conſtipation of the Pores. Beſides, that particular Humour which is already become putrid, muſt, as far as poſſible, be corrected, concocted, and diſcharged when fitted for Excretion. During which Seaſons, we muſt endeavour principally to relieve the Diſtemper itſelf, and to obſerve a temperate Regimen. In like manner the Violence of the Symptoms, which accompany the Diſeaſe, is to be reſtrained.

BUT as theſe very Precepts, which are drawn from thoſe Things which offend the Health,

Health, are ſupported by ſound Practice; ſo are they uſeleſs, not to ſay pernicious, if the Patient has not Strength ſufficient to ſubmit to them. For it is the Strength ſolely, which preſerves the Life of Man, both by enduring Diſeaſes and their ſeveral Remedies; wherefore it is abſolutely neceſſary to regard and preſerve it entire, leſt being weakened by irregular Applications, or the Diſtemper itſelf, it ſhould wholly ſink. And this is done by proper Diet, and Air. We have taken care to treat of the above mentioned Particulars in ſuch an Order, and to lay the whole Matter before the Reader in ſuch a Manner, that he may be ſufficiently acquainted with the moſt rational Method of curing theſe continual Fevers.

CHAP. II.

Of Letting of BLOOD.

SINCE the two Directions in letting Blood, are the Greatneſs of the Diſtemper, and the Firmneſs of the Strength, this Kind of Remedy ought undoubtedly, if in any Caſe, to be tried in a continued Fever. For as this Diſeaſe is of itſelf the moſt violent, and therefore generally reckoned peculiar to young Perſons, who naturally abound

both in Blood and Strength: Therefore as ſoon as the Diſtemper hath invaded any one who is robuſt (which is generally known on the ſecond Day) we may, by opening a Vein, draw off Blood according to the Strength of the Patient, and the Vehemence of the Diſtemper, unleſs there be any thing to forbid it. By this means Nature will be ſo far eaſed of her Load, as to be enabled for the future the more eaſily to overcome, concoct, and ſecrete the remaining morbid Matter. And indeed this Remedy was never omitted in an acute Fever without evident Danger. Thoſe Perſons, whoſe Strength may haply preſerve them without it, may be delivered from the apparent Danger by a plentiful Diſcharge of Blood from the Noſtrils, or copious Sweatings.

BUT it may be here objected, Whether we ought to open a Vein in a Boy, an old Perſon, or a Woman who is pregnant, in an acute Fever. *Galen* took no Blood from a Child under fourteen Years of Age; and many others are afraid of it in Perſons above ſeventy; and *Hippocrates* affirms, that, if a pregnant Woman be let Blood, Abortion will enſue. But this Controverſy muſt be waved. The Ancients uſed to make very large Evacuations, which are injurious to thoſe who are infirm. Therefore they juſtly avoided them in thoſe Bodies, where there was not a ſufficient Degree of Strength, or where, though otherwiſe firm, there might be

be any Danger of Abortion, from a Loſs of Blood, which affords both the Mother and Fœtus neceſſary Aliment. But as they prudently avoided it in their Evacuations, ſo we juſtly paſs it by, being content with ſuch moderate Diſcharges, which do not ſo incommode thoſe Perſons who are ſomething infirm, but that the Weakneſs may be corrected, and the Life of the Patient preſerved. When the Strength is dejected, all Evacuations, but particularly Bleeding, are hurtful. But where the Strength is diminiſhed, tho' not wholly infirm, what hinders but that they may bear a ſuitable Evacuation? The Caſe undoubtedly ſtands thus, that they who are afflicted with grievous Diſorders, may alſo undergo ſome of their Remedies.

CHILDREN are naturally endowed with no ſmall Share of Strength, which being placed in a fluxile and rare Habit of Body, eaſily flags, yet may it in a very acute Fever admit of ſome Loſs of Blood; eſpecially if they are not much under fourteen Years of Age. For the Weakneſs conſequent thereupon, may afterwards eaſily be corrected by proper Food. And it is much more eligible, to ſnatch a Child from imminent Danger of Death, however the Strength may be waſted, than to let him periſh by the Violence of the Fever. Which ſeems much more happily followed by the *Arabians* than the *Greeks*. For that great Fluidity in the Subſtance of Children which *Galen* alledges, and which

he pretends is ſufficient to carry on the Cure, and ſupply the Place of Bleeding, is of no Importance; that Succour being too ſlow and feeble, eſpecially in a violent and acute Diſeaſe which requires a ſpeedy and efficacious Remedy. There may be ſome room for *Galen*'s Advice, in ſound Children, where the looſe Habit of their Bodies is ſufficient to avert the Inſults of Diſeaſes; for when theſe are ſeized with an acute Fever, we are allowed to bleed, particularly if they are any thing vigorous.

AND in ſtrong old Men, whoſe ſolid Bodies are not eaſily relaxed, I think there is no Doubt but that we may take away Blood very ſafely, when the Violence of the Fever requires it. And in this Caſe *Razes*, an *Arabian* Writer, had ſo little Dread of opening a Vein, that even to ſuch as were decrepit, who had any Degree of Strength, he preſcrib'd it confidently, and with good Succeſs. Of this Opinion likewiſe was *Galen*; when he tells us that we are not only to regard the Number of Years, but alſo the Habit of Body. For ſome, ſays he, cannot bear Bleeding even in their ſixtieth Year, as being dry, withering, and not full of Blood; when others who are of a ſtrong and ſanguine Conſtitution can undergo it at ſeventy. This may certainly be done, if it be remembred, that the Phyſician's Judgment muſt be guided not by any determinate Age but the Strength of the Patient. If a Youth be weakly, ſays,

Celſus,

Celſus, it would be wrong to take away any Blood; but ſtrong Children, and robuſt old Men are ſafely cured by this Method. However, we muſt remember in theſe Caſes to be ſparing in our Evacuations, and not truſt to that Strength which will ſuddenly fail. Wherefore *Celſus* himſelf thought, that an unexperienc'd Phyſician might eaſily be miſtaken herein, there being no great Stock of Strength at theſe ſeveral Ages.

FARTHER, Bleeding may ſeem injurious to pregnant Women, becauſe the Fœtus being robbed of its Aliment, Abortion readily enſues, eſpecially in an acute Fever, which of itſelf burns up the Blood, and brings on a Feebleneſs. For in this Caſe, due Strength, and a ſufficient Quantity of Blood are required, after opening a Vein, both to remove the Diſtemper, and alſo to ſupport both the Mother and her Child. And it is not in the leaſt ſtrange, that there ſhould be ſo much Danger from the Loſs of Blood, ſince two Bodies are ſuſtained together in one Woman. Theſe are ſpecious Arguments indeed, and ſeem very concluſive againſt Bleeding; tho' of no great Force, if we do it with Moderation, according to the Cuſtom of our Times, and the Strength of the Patient. For what Injury can the Loſs of four or five Ounces of Blood be to a Woman in a very acute Fever, which threatens Deſtruction both to the Mother and the *Fœtus?* On the contrary,

what can be more cruel, than to leave an unhappy Woman a Prey to the Violence of her Diſtemper, without any ſalutary Aſſiſtance, and to ſuffer the Fœtus to die in its Confinement, without any Hopes of ever ſeeing the Light? But it may be objected, that violent Diſeaſes require violent Remedies, and that a Woman in a high Fever can receive no great Benefit from the Loſs of ſo ſmall a Quantity of Blood. To this I anſwer, that ſince greater Regard is to be had to the Strength than the Diſeaſe, we muſt follow *Galen*'s Advice; who, when the Violence of the Diſtemper requires ſuch a plentiful Evacuation as the Strength cannot bear all at once, adviſes us to repeat it, and in the mean Time to ſupport the Patient with proper Nouriſhment, that ſo we may ſafely take away at the ſecond Operation, what could not be done at firſt without Danger. Tho' yet one Bleeding may generally ſuffice, ſince we muſt not by any Means take much away from ſuch a Woman, who ought to retain a due Quantity of Blood both for herſelf and Fœtus, eſpecially if it be grown to any conſiderable Size. In the firſt Months indeed of Geſtation we may, if there be an acute Fever, ſafely let Blood according to the Exigence of the Diſtemper; for then the *Menſes* being ſuppreſſed, there is a Redundancy of Humours in the Body, and the tender Fœtus requires but a ſmall Share of Suſtenance. From this Redundancy of Humours,

mours, which is likewiſe oftentimes attended with ſome ill Quality, ariſe Pains in the Head, Nauſeatings, Shivering, Fevers, and ſuch like Ails; which, as they are troubleſome the three firſt Months, ſo in the fourth, the Fœtus being encreaſed in Bulk, and demanding a larger Supply of Food, go off generally of themſelves. To remove theſe Complaints, many Women (particularly thoſe of a full Habit) loſe ſome Blood in the Beginning of their Pregnancy, and find that by this Precaution they preſerve themſelves, and that the Fœtus when born, enjoys a better State of Health, and is leſs ſubject to any cutaneous Diſorders. And if theſe find ſuch Benefit from this Remedy, why may not they ſubmit to it, who are under an immediate Neceſſity of ſo doing from the Violence of their Diſtemper. Neither will the ſame Danger enſue (as ſome imagine) from Bleeding in the firſt Months, which, *Hippocrates* tells us, does from Purging.

FOR the purging Potions of the Ancients put the whole Body at once into a violent Agitation, by which Means they eaſily broke the feeble Priſon of the tender Fœtus, ſo that it is no Wonder, Abortion often enſued. But Bleeding, eſpecially according to our Cuſtom, gently draws off any Thing that is ſuperfluous, without any Violence, or Perturbation of the Body, and eaſes the Mother of a Load of Humours, without weakening either her own Strength, or her Offſpring.

Offspring. And if *Hippocrates* allowed of purging Medicines in the three middle Months of Geſtation, why ſhould it be a Crime in us at that Time alſo to take away a moderate Quantity of Blood by opening a Vein? Therefore this Precept remains perpetual and inviolable; that in Women great with Child, labouring under an acute Fever, Conception ought not ſolely to be regarded, but the Strength and Condition of the Body, and from thence we may make our Conjectures, whether or no we may ſafely try that Remedy which the Diſtemper requires. Therefore, in a great and acute Fever, Blood muſt always be taken away, if the Strength will any ways admit of it.

FARTHER, this Strength or Powers being fixed in particular Places, proceed from thence thro' the whole Body; and are either the animal Powers, which cauſing Senſation and Motion proceed from the Brain thro' the Nerves; or the Vital, which preſerve the Flame of Life from the Heart thro' the Arteries; or the Natural, which being ſeated in the Liver, maintain and carry on the Nutrition, by Means of the Veins. If theſe Functions and Operations are duly performed, they argue theſe Powers to be intire; but if ill or weakly, that then they are infirm. Wherefore an obſtinate Watching, Delirium, Sleepineſs, or a Contraction of the Nerves, teſtify an Imbecillity in the animal Powers. And a ſmall, obſcure, and

weak

weak Pulſe, and a ſmall, difficult, frequent Reſpiration, unleſs they follow upon any Defect in the Breaſt or Lungs, ſhew the vital Strength to be infirm. And Excrements that are crude, or wholly vitiated, as likewiſe ſuch that are either diſcharged in too ſmall a Quantity, or elſe wholly retained, are Proofs of a Weakneſs in the natural Powers. In an acute Fever therefore, as undoubtedly alſo in every great Diſorder, if theſe Powers are firm, a Vein muſt be opened; but if they appear dejected, either by the Violence of the Diſeaſe, or any other Cauſe, it muſt be omitted.

BUT when theſe are ſo diſordered, that they do not ſeem entirely dejected, but languid, the uſual Vigour being only impaired, and are at the ſame Time attacked by any violent Diſorder, as an acute Fever, we muſt by no Means omit Bleeding, neither muſt we make too large an Evacuation at one Time (for this would be to deſtroy the Patient, and leave him to the Fury of his Diſtemper without any Help) but make repeated Diſcharges at ſeveral Times, taking care in the mean while to repair the Strength. This, indeed was the Method which *Galen* perſued, as we have already mentioned, who, when the Patient was infirm, took away at firſt a proper Quantity, and afterwards ſupplied the Defect, by repeating the Operation.

BUT it muſt be obſerv'd, that this Repetition muſt be made the ſame Day, and not

at

at the Space of ſeveral Days, one while at the Diſtance of ſome Hours, at other whiles, in the Space of one Hour only: Sometimes indeed it muſt be done in the very Impulſe of the Flux, either by looſening the Bandage, or ſtopping the Orifice with the Finger. In this Delay, the Strength muſt be recruited either by laying the Patient on his Back, or ſmelling to any Thing ſpirituous, or taſting any cooling and refreſhing Fruit; and theſe Intervals are to be determined according as the Strength is affected, which Strength waxes always weaker, as the Diſtemper increaſes; and requires a longer or leſſer Space of Time for being repaired, as it is either more or leſs broken. However, in an acute Fever, which is ſeated as it were in the whole Body, the Repetition muſt not be deferred beyond a Day, as being intended not by Way of Revulſion, but a general Evacuation; and this, leſt the effervescent Blood ſhould either ſeize upon any principal *Viſcus*, or contract a greater Putridneſs, unleſs timely drawn off. Add to this, that in the latter Days the Strength is impaired by the Diſeaſe, and that very Matter, which begins to be concocted, and ſeparated from the ſound Humours, ought then to be diſcharged rather by a Purge, than the Opening of a Vein. Which Matter will be farther explained in the following Pages; where the Unſkilfulneſs likewiſe of the common Herd of Phyſicians

ficians will be expoſed, who open a Vein, even in the State of a Fever.

BUT we muſt now return to the Conſideration of the Strength. It is controverted among the Ancients, whether or no, Blood ought to be taken away, even when the Violence of the Fever ſhould require it, and the Omiſſion of it would be attended with certain Deſtruction, though at the ſame Time, the Strength, which has been greatly impaired either from the Beginning of the Sickneſs, or by the Diſtemper's running high (Bleeding being neglected at firſt) ſhould ſeem by no Means to allow of it. *Celſus* thought it better in ſuch a Caſe as this, to try a doubtful Remedy than none at all. If, ſays he, there is no other probable Remedy, and the Patient is like to periſh, unleſs relieved in ſome hazardous Manner; it is the Duty of a good Phyſician to repreſent what little Hopes there is without the Loſs of ſome Blood, at the ſame Time confeſſing the great Danger that attends it, and then laſtly, if it be allowed, to open a Vein. *Galen* indeed thought very differently, and, in my Opinion, much better upon this Head, affirming, that we ought always to be ſparing in the Uſe of thoſe Remedies, which deſtroy the Strength, the Guardian of Life, and bring Diſgrace and Infamy upon the Phyſician, rather than Praiſe and Renown. Thus, by making a judicious Preſage, we may free our Conſciences from any Opinion of

of Guilt, and at the ſame Time defend our Reputation, as well as the Dignity of our Art. For he that removes a Diſeaſe by deſtroying the Life of his Patient, acts the Part of an Executioner, rather than a Phyſician. Wherefore, when any Evacuation is to be made, we muſt always regard the Strength; which, if it ſeem to be wholly broken and invalid, rejects all extraordinary Means of Relief, and muſt conſequently be cheriſhed in ſome gentler Manner.

IT is undoubtedly humane, to give the Sick even the ſmalleſt Relief from our Art, when their Caſe is deplorable. However, I think, *Celſus*, who was a very conſiderable Writer among the Ancients, is in ſome Meaſure to be excuſed upon this Head; whoſe Precepts, ſince they every where ſavour of our great Maſter *Hippocrates*, we muſt not over-haſtily reject. That Author tells us, that his Precepts are particularly to be obſerv'd, when the Nerves are relaxed; when any one becomes ſuddenly mute, or is ſtrangled with a Quinſey; when the Patient is ready to ſink under a Fit of a Fever, and it is very probable another will ſoon enſue, which the Strength ſeems in no wiſe able to endure. Theſe indeed ſufficiently argue, that the Strength was here underſtood by *Celſus* to be oppreſſed with a Load of Humours, and not broken. For my Part, I take it to be oppreſſed, when by Reaſon of any ſudden Affluence of effervescent and putrid Humours,

Humours, or when these dangerously attack any particular Part, there is a momentary and false Appearance of Weakness, as if it was burthened with any troublesome Load. And in this Case, unless the Strength be timely relieved by Bleeding, there is very great Danger.

FURTHER, it is disputed by some, whether or no all the Powers of the Body ought to be taken into Consideration in an acute Fever, as is certainly to be done in every other Distemper, in order to let Blood; or only the greater Part of them? *Galen* thought it sufficient in acute Diseases, to regard only the vital ones; and if these are vigorous, he affirms, that we may safely open a Vein. This Precept seems indeed not ill-grounded. For an acute Disease, and a continued Fever, especially, which is solved in a short Time, cannot affect the solid Parts so much as a Chronical one may. Besides, if the vital Strength remain entire, we need not so much fear any Weakness of the animal Powers, as what will soon cease of it self, when the Distemper is removed. I remember to have seen many in acute Fevers, who about the Time of the Crisis, being first seized with a great Delirium, and after that, with a profound Sleep, like Persons dying, without the Use of their Understanding, or any certain Command of Motion or Sense, have lain some two or three Hours, others a Day, and one in particular at *Tournay* for

for two Days, yet with a firm ſtrong Pulſe; which gave me no ſmall Hopes of Succeſs, and which indeed happily followed after ſome Stools, and profuſe Sweats. Indeed I take the whole Affair to ſtand thus: In accomodating Evacuations to acute Fevers, as a Phyſician is to lay a great Streſs upon the Pulſe, ſo ought he not to truſt wholly to it, as being very fallacious and uncertain, and what may eaſily be diſturbed a thouſand Ways; Age for Example, Sex, Conſtitution of the Body, weak Stomach, Fear, Anger, Joy, the ſudden Entrance of the Phyſician, and a thouſand other Things, which affecting the vital Spirits, may eaſily prevent the forming a true Judgment of the Pulſe, ſo that a ſufficiently ſtrong Man may appear Weak, and one who is feeble appear Vigorous. But ſetting aſide ſuch like Caſes as theſe, we muſt obſerve, whether or no the Pulſe remains conſtantly firm; which, if it does, we may confidently let Blood in an acute Fever. And it likewiſe follows, that in all Diſeaſes, if any Evacuation is to be made, we muſt equally conſult all the Powers of the Body: Thus in Acute Diſtempers, we muſt principally regard the Vital ones, in Chronical, the Natural, and in both, the Animal indifferently. And acute Fevers, ſince they both attack the Body with great Violence in a ſhort Time, and terminate in profuſe Evacuations, particularly require ſtrong vital Spirits, in order both to effect and ſuſtain them.

But

But long Diſeaſes are not conquer'd ſo much by profuſe and evident Evacuations, as by Length of Time, and a gentler Concoction of the morbid Humours. In theſe therefore the natural and concoctive Powers are required, and to be regarded, if we would make any proper and ſafe Evacuation.

TO conclude this Head; though the vital Strength is principally to be conſidered, yet is it not to be ſo univerſally; for as ſoon as the vital Powers are weakened by a profuſe Diſcharge, the others are likewiſe ſhocked at the ſame Time, which Shock may prove equally deſtructive to the Patient, as that of the vital ones. Beſides, as the Neceſſity of Bleeding (which we have hitherto ſufficiently demonſtrated) is certain in an acute Fever, when the Powers are valid, ſo the Quantity to be diſcharged, is uncertain and various, according to the Violence of the Diſeaſe, the different Conſtitutions and Ages of the Perſon, and the Seaſon of the Year.

WHICH Matter we ſhall now proceed to treat of, and from thence determine the proper Time for letting of Blood.

CHAP. III.

Of the Quantity of Blood which ought to be taken away in acute Fevers.

TO let Blood in acute Fevers, is common; but to do it in a proper Quantity, and with Moderation, does not ſeem to be either very common or ſufficiently determined. For ſome conſiderable Obſervations are to be attended to, by which the certain Quantity of Blood to be taken away, is to be aſcertained; and theſe conſiſt in making a juſt Eſtimate of the Diſeaſe, and the Strength. For a great and violent Diſeaſe, if the Powers of the Body are at the ſame Time firm, requires a liberal Evacuation. But a continued Fever (that we may firſt treat of the Greatneſs of the Diſtemper, and then of the Strength) becauſe it is ranked among the moſt violent Diſorders, and is almoſt peculiar to Perſons vigorous, and of a good Habit, demands a plentiful Diſcharge; eſpecially, if it be the continent Kind, called by the *Greeks* σύνοχος, which diſtends the Veſſels with too great a Load of all the Humours together. In which Caſe, *Hippocrates* and *Galen* were not afraid to let the Patient bleed till he fainted; which Method they were induced to follow, both from Reaſon and Experience. For, by this profuſe Evacuation,

Evacuation, the Patient is first thrown into a quite contrary Condition, being immediately cool'd by his Loss of Spirits; after this, there frequently happens, either a Discharge by Stool, or the Bile is plentifully thrown up by Vomit, or the Body certainly breaks forth into profuse Sweats, and by this Means some Persons have the good Fortune to be wholly cured, and others to be greatly relieved. Wherefore, I the less like *Avicenna*'s Method, of making the Discharge at several Times, not remembring the Precept of *Hippocrates*; that violent Remedies were to be applied to violent Disorders. Besides, as to the Faintness, it is to be observed that we must not always expect it, and that we must always finish the Evacuation without it, when a sufficient Quantity has been discharged in Proportion to the Strength and Disease. For there are some who do not soon grow faint, whom if you should endeavour to empty till they did, you would infallibly destroy. But if any one should happen to faint, while the Blood still flows within Measure, the Flux must immediately be stopp'd, and the Evacuation always finish'd before the Spirits are entirely sunk. Wherefore, the Physician ought to be very watchful of the Pulse, lest the Patient should be seized with Death instead of Faintness, and when that, from being large begins to grow small, from being equal to unequal, from being strong to be weak and obscure, he must immediate-

ly ſtop the Bleeding; eſpecially, if the Blood does not come with the ſame Impulſe, and the Patient begins to languiſh. And this Faintneſs is either preceded or accompanied with a Yawning, Tinkling of the Ears, a Dimneſs of the Sight, and ſometimes (the Humour attacking the Stomach) an Hiccough and a Nauſea.

THE Fevers which the *Greeks* diſtinguiſhed by the Term συνεχῆς, and which the Moderns call *continual*, do not admit of an Evacuation equally profuſe, becauſe in theſe there is not ſo great an Affluence of Blood, as in thoſe which have been termed σύνοχοι, or *continent*; but ſome one particular Humour is putrified in the larger Veſſels, which muſt be diminiſhed by a more moderate Diſcharge of Blood.

FARTHER, concerning the Strength; if this be vigorous, it will admit of a plentiful Evacuation, but if it be entirely dejected, none at all, and if middling, an imperfect one indeed, but yet ſuch as may be uſeful. This Strength varies according to the Temperament, Conſtitution, Habit, and Age of the Perſon, likewiſe the Seaſon of the Year, Country, Climate, Diet, and particular Manner of Living, accidental Evacuations, and thoſe Symptoms which are generally violent in acute Fevers. We will begin then with the Temperament of the Body, either natural or acquired, and the Habit, which is nearly allied to it.

A well-tempered Body therefore will admit of a due Diſcharge, and ſuch as is anſwerable to the Diſtemper. But one that is hot, and at the ſame Time humid and fluxile in the ſolid Parts, ſuch as is that of Children, who are every Day greatly diſſolved by the innate Heat, requires a more ſparing Evacuation. But if hot, and abounding in Blood, tho' not too humid in the ſolid Parts, ſuch as is that of Wreſtlers, it will ſuſtain the moſt plentiful Evacuation of all. The hot, and moderately dry, has generally large Veins, and will therefore bear a much freer Evacuation than the cold and moiſt, or the cold and dry. For in both theſe, the Veins are but ſmall, and no great Degree of Heat.

IN a denſe, firm, full, muſcular Habit of Body, we may let Blood liberally; but not ſo in one that is ſoft, rare, fat, and pale, for this is a Sign of ſmall Veſſels, and a Paucity of Blood. A moderately lean Habit, if attended with large Veſſels, betokeneth Plenty of Blood; but if with ſmall ones, Weakneſs. Therefore, that will endure a conſiderable Loſs of Blood, and this, the leaſt that is poſſible. Beſides, it is to be obſerved, that the Signs taken from the Habit are ſometimes fallacious, and that we cannot always from thence make a true Eſtimate of the Quantity of the Blood, and the Strength of the Body. For this very Habit, by a certain Manner of Living and Diet, acquires an aſcititious Conſtitution, the natural one

being loſt. Labour, Watching, Anxiety, and a ſpare thin Diet, often render a Habit, naturally fat, very lean. On the contrary, Idleneſs, much Sleep, an eaſy Mind, plentiful Eating and Drinking, have often loaded a Man, naturally lean, with Fleſh, and ſometimes Fat. Therefore, the true Differences in theſe Things muſt be taken from the Veins, which if they are large, or elſe in a fat Habit of Body, eaſily bear Bleeding: But if ſmall, though perhaps the Body is lean, they hardly bear that Kind of Evacuation. So juſt is the Remark of *Celſus*, that, the Strength of the Body is better calculated from the Veins, than from the Form of the Perſon. While we are diſcourſing of the Habit of the Body, it may not be improper to take Notice of the Unſkilfulneſs of many Phyſicians, who, when any Blood is to be taken away, ſo little underſtand, I will not ſay, deſpiſe this Precept concerning the Habit, that in an acute Fever they indiſcriminately bleed all, both ſoft and firm, lean and fat, and this without Moderation. To this Error of the Phyſicians, the *Germans*, *Britiſh*, *French*, and *Dutch* are chiefly expoſed; ſince theſe People are of a ſofter and more inflated Habit of Body, than either *Greeks*, *Italians*, or *Spaniards*. For theſe Nations, becauſe of their ſolid and muſculoſe Bodies, with large Veſſels, receive no Injury from profuſe Evacuations, when the Violence of the Diſtemper requires them.

Galen

Galen tells us, that he himſelf had taken ſix Pounds of Blood from ſome *Grecians*, with great Succeſs, and without any Loſs of the Strength. And the *Italian* and *Spaniſh* Phyſicians often take two Pounds of Blood from their Patients, both with Prudence and Safety. Should any one imitate their Example upon our Bodies in an acute Fever, he would ſo far debilitate the Strength, that the Patient would either ſink under the Diſtemper, or, if he recovered, would undoubtedly remain ſo much injured, that he would ſcarce recover his former State, for many Years. And I have ſeen great Numbers among our ſelves ſo evacuated by the unadviſed Temerity of the Phyſicians, that ſome being weakened by an immature and forced Criſis, periſhed; and others were thrown either into a Dropſy, or this or that Kind of vicious Habit. In a *Synochus*, if the Body is lean, firm, and ſolid, and full of Blood, (ſuch as is generally that of the *Italians* and *Spaniards*) *Galen* tells us, we may bleed without Danger. But, ſays he, if the Perſon to be blooded be thirty Years old, and ſhould be lax, ſoft, fat, and pale, with ſmall Veſſels, you muſt either take no Blood away, or elſe very little. And if *Galen* was ſo ſcrupulous in this Matter among the *Greeks* and *Romans*, who were perhaps of a ſoft and pale Habit, and dwelt in a temperate Climate; how much more careful ought we to be with our Countrymen thus affected, who beſides that par-

ticular Habit, are ſo incommoded with a cold Sky, and perpetual Crudities on account of their Voraciouſneſs, that we can neither bleed them in any Quantity, or with Confidence. Neither muſt we ſo far empty either the *Greeks* or *Italians* of their Blood in any Fever, however violent and acute, as not to leave the ſound Part of it towards carrying on the Cure, leſt we ſhould be obliged to nouriſh the Patient unſeaſonably. But Nouriſhment of any Kind, ſince it is given upon Account of the Strength, is not ſo much required in Continual Fevers, as in thoſe which are ſhort, and which do not uſually happen to weak Perſons. Therefore the Diſeaſe is encreaſed by Nouriſhment that is either too plentiful or out of Seaſon. So that we are under a Neceſſity either, if we do nouriſh, of encreaſing the Fever, or if we do not, of deſtroying the Strength which is broke by the too great Diſcharge of Blood. *Hippocrates* has, in my Opinion, wiſely obſerv'd, that extreme Evacuations of the Veſſels are dangerous. Wherefore *Galen* judged it better to leave the ſound Part of the Blood, which is the proper Nouriſhment of the Parts, and to give but very ſmall Quantities of Potables, which in acute Fevers, ought rather to ſupply the Place of Phyſick than Food. But if in Diſtempers of this Sort, the Blood alone ſhould be ſuperfluous, without any Putridneſs, or Obſtruction of the Veſſels, we may then in any Body, of whatſoever

ſoever Nature or Habit it be, take juſt ſo much Blood away as the Strength will bear. But becauſe opening a Vein is not a ſuitable Remedy againſt Putridneſs and Obſtructions, the ſound Part of the Blood ought to be preſerved, that it may cheriſh and defend the Powers of the Body againſt the Violence of the Diſtemper. This indeed ſeems more eligible, than to run the Patient into Danger by letting out the whole Strength at once. Let no one, for what has been ſaid, repreſent me as an Enemy to Bleeding, and ſo very unſkilful, as to endeavour to contract and leſſen the neceſſary Remedies in Diſtempers.

AND indeed I only lay down the due Meaſure of them, for which I appeal to *Galen* as a ſufficient Authority, and to Reaſon alſo confirmed by Experience. But it may perhaps be replied, that the Quantity of Blood in an humane Body is great, and that in ſome Perſons it diſcharges itſelf ſpontaneouſly from the Noſtrils even to the Weight of three Pounds, without any Inconvenience, or loſs of Strength; and that therefore we may by Art, imitate Nature according to the ſeveral Neceſſities of Diſtempers. *Fernelius* tells us of a pregnant Woman in an acute Fever, who, on the ſeventh Day, bled ſo copiouſly at the Noſtrils as to fill a Baſon which held little leſs than four Pints, the Mother ſurviving, and the Fœtus preſerved ſtrong and lively to a mature Birth. Farther,

ther, tho' theſe things are true, and carry with them a great Show of Reaſon againſt us, yet can they by no means overturn our Opinion. For we muſt obſerve (what I find has not been regarded by others) that the Strength is much more weakened and diſſipated, by the Blood's being diſcharged at once from a large Veſſel in the Arm, than by its diſtilling from the ſlender Veſſels of the Noſe for the Space of ſome Hours. For in this Caſe, there is not ſo great a Loſs of Vital Spirits; in the other, one of the large Veſſels being wounded, the Blood flows out plentifully together with a great Quantity of Spirits. I have ſeen ſome in acute Fevers, who, when I had taken away, at the Beginning of the Diſtemper, only eight Ounces of Blood, immediately fainted; and yet in the Progreſs of the Diſeaſe, theſe very Perſons have voided three Pints or more without the leaſt Languor, I will not ſay, Defect of Spirits. Who does not know, that in the *Hæmorrhoides* and *Menſes* the Blood is gradually diſcharged for ſeveral Weeks? Or that in any Wound, where no great Veſſel has been injured, it has flowed immoderately, without any Sign of Faintneſs or a Syncope? But if any one ſhould attempt, in Imitation of the abovementioned Evacuations, to take away a like Quantity of Blood from the very ſame Perſons, by opening a large Veſſel in the Arm, he would undoubtedly, a Syncope ariſing, take away the Strength and Life of his

his Patient together with the Diſeaſe. Whence 'tis evident, that Example has been in vain alledged by many excellent Men, and that on the contrary the Place ought rather to be regarded, from which the Blood is diſcharged, and whether it be of ſuch a Nature, that much Blood and vital Spirits may be thence diſſipated in the ſhorteſt Time; from which Place undoubtedly it is dangerous to take away Blood in the ſame Quantity, as it oftentimes diſtils from the extreme Parts of the Body through the ſmall Veſſels, without injuring the Strength. And though this, which I deny, may be of little Force, yet they ought certainly to have obſerved, that a natural Evacuation does not equally prejudice the Strength with one made by Art; which is a Thing founded upon Reaſon, and proved by daily Experience, And this I would have all know and conſider, who with great Raſhneſs ſhed that noble Treaſure of Life, the Blood, without Meaſure and without Neceſſity.

THE next Thing to be treated of is the Age; which if it be of Children, or old Men, rejects a copious Diſcharge of Blood: This is eaſier ſuſtained by the intermediate Ages, as there is then a greater Affluence of Blood, with a more confirmed Strength and a better conſtituted Body. And though the natural Powers in Children may be ſufficiently valid, and they may ſeem upon that Account to be able to bear a Diſcharge; yet ſince they

they are contained in a humid and fluxile Body, they eaſily flag upon the loſs of Blood, and therefore can bear but moderate Evacuations, though the Diſtemper may be urgent. And in old Men, eſpecially ſuch as are decrepit, the Strength is really wanting; wherefore as they, who are yet vigorous, reject only ſuch Evacuations as are profuſe; ſo thoſe, who are decrepit, admit either of none at all, or without doubt the ſmalleſt poſſible.

FARTHER, if it be the Spring of the Year, we may be more liberal in the Loſs of Blood; but more ſparing in the other Seaſons. However it may be aſked; which of theſe three it is the moſt convenient to bleed in? *Galen* adviſes us to take but a ſmall Quantity in the Autumn, leſs in Winter, but leaſt of all in the Summer. This Precept our Countrymen have very erroneouſly followed, and that not through any miſtake of *Galen*'s in this Affair, but by their own wrong Application of that to the *Germans*, which ought only to be underſtood of the *Grecian* and adjacent Countries.

IT ought to be laid down as a Law, univerſally true, that a greater Quantity of Blood may always be taken at that Seaſon of the Year which approaches neareſt to a due Temperature. For this increaſes the Maſs of Blood, and renders the Strength of the Body more confirmed. In *Greece* therefore, which was the Country of *Hippocrates* and

and *Galen*, ſince their Bodies were not much pinched in the Winter, it being there not very ſevere, the Blood and native Heat were pretty vigorous; ſo that then the ſound Part of the Blood, if the Violence of the Fever required it, might be taken away without any Danger. But in our Climate, the Bowels, during the hard Winter Froſts, unleſs defended by a due Quantity of Blood, will be in great Danger of being weaken'd and chilled. Therefore we muſt at this time let Blood much more ſparingly than in Summer, which with us is very tolerable, and whoſe Heats are not ſo troubleſome to us as the Winter Colds. And indeed our Bodies, which are ſubject to Crudities, are much befriended by the Summer, which often renders the Juices more perfect and much better concocted. The Winter, both on account of its Rigour, and the Voraciouſneſs of our People, renders thoſe Juices, which were before naturally crude, much more ſo; and to this Inconvenience, they who inhabit nearer the *North* and the *Eaſtern* Sun, are more expoſed; while thoſe who live under a temperate Sky, are not ſo. Thus in *Lybia*, the ſmalleſt Quantity of Blood muſt be taken away in the Summer, whoſe Heat being very violent, greatly weakens their Bodies by the Relaxation it cauſes in them. But in the Middle of Winter, which is there very mild, they may loſe as much Blood, with

with reſpect to the Seaſon, as we can in the Middle of Spring.

THUS it appears, that any one Precept concerning the Seaſon, cannot be perpetual for regulating the Meaſure of Bleeding, but that it ought to vary according to the Situation of the Countries, as they approach more or leſs to an exact Temperature. Therefore the *Scotch*, *Engliſh*, *Livonians*, *Danes*, *Poles*, *Dutch* and *Germans*, ought to take leſs Blood away in Winter than in Summer; on the contrary, the *Portugueſe*, *Moors*, *Ægyptians*, *Paleſtinians*, *Arabians*, and *Perſians*, more in the Winter than in Summer. But the *French*, *Spaniards*, *Italians*, and *Greeks*, ſince their Winters are not ſo hard as ours, and their Summers, though not the moſt ſultry, are yet ſomething hotter than with us; theſe, I ſay, always bear a greater Evacuation at that Seaſon, when their Bodies being very firm are in no Danger of being chilled, which with them is the Winter, than in Summer, when their Bodies being relaxed by the Heat, are continually diſſipated. After the Inhabitants of a temperate Region, our Countrymen ſeem capable of bearing this Kind of Remedy tolerably well, whoſe cold Seaſons are pretty moderate, which retain the native Heat and Juices within the Body, and do not in the leaſt affect the Bowels, if the Blood be taken away in a moderate Quantity.

WHAT has been ſaid of the Country, muſt likewiſe be underſtood of the Climate. That which is temperate, and no ways tempeſtuous admits of plentiful Evacuations; but the Contrary muſt be obſerved, where they are chilled with cold *Northern* Blaſts, or burnt up with the raging Heats of the *South*.

FARTHER, the Diet and Manner of Living are likewiſe to be conſidered. All Wreſtlers, and ſuch as feed heartily and digeſt well, may ſafely loſe Blood very liberally. On the contrary, thoſe, who being parſimonions and contented with a ſlender Diet, have weaken'd themſelves with much Labour and Anxiety, muſt have a ſmaller Quantity taken from them. And it muſt be alſo remembred, that we may take more Blood away from one, who has been before blooded, than one who never was at all.

WE now proceed to thoſe Symptoms, which ariſing in acute Fevers, forbid copious bleeding; for Inſtance, an immoderate Evacuation, diſtenſion of the Nerves, great Pain attended with Watching and Faintneſs: And indeed the latter of theſe, as they greatly incommode the Strength, indicate but ſmall Evacuations. The firſt Symptom, which is an immoderate Evacuation, ſince it effects that of itſelf, which is required from our Art, juſtly indicates either a very ſmall Diſcharge of Blood, or none at all. Therefore, if the Belly in an acute Fever, ſhould

ſhould by any Means be too much looſened, ſome adviſe but ſmall Evacuations. *Galen*, who was a diligent Obſerver of the Strength, bids us entirely ſuperſede all other Evacuations, when a Looſeneſs attends a Fever, and affirms, that that alone is ſufficient, although not in Proportion to the Plenitude; and he farther tells us, that thoſe, who ſeeming to require a more copious Diſcharge, loſt any Blood, were thrown into extreme Danger. Farther, this muſt be obſerved in other Evacuations, ſuch indeed as are bloody: If Nature ſhould by its own Strength ſuddenly throw out any Thing, which may appear to be the morbid Matter, and ſhould relieve the Patient, and be diſcharged in a proper Quantity, we muſt not only make no ſmall Evacuation, but entirely deſiſt from Bleeding, and leave the whole Affair to Nature. For Example, if in the Menſes, Hæmorrhoids, and bleeding at the Noſe, the Blood ſhould be ſo diſcharged in a *Continual Fever*, as that the Humour which created the Diſtemper, be abundantly drawn off, we muſt forbear opening a Vein; but if that be not fully and abſolutely done, we muſt ſupply, what ſeems to be defective, by the letting of Blood.

WE have hitherto explained thoſe Things, by obſerving which, the juſt Quantity of Blood to be taken away is aſcertained; and which are capable of doing this, not only when they are preſent, but likewiſe when they

they are either paſſed, or elſe ſeem to threaten. And indeed great Sagacity is required in the Phyſician perfectly to comprehend the Number, Force and Weight of theſe Things, and to judge, as near as may be, the due Quantity to be taken away, when Bleeding is requir'd in an acute Fever. But if his Skill cannot reach ſo far, he muſt endeavour to come as near the Mark as poſſible, and always ſtop ſomething ſhort of it, rather than offend the Strength by too profuſe an Evacuation. For whatever ſhall poſſibly be found defective, may afterwards be compenſated by other Evacuations, ſuch as Stools, Sweat or Urine. Neither can the Injury, which is done by too immoderate a Diſcharge, be afterwards repaired (as ſome perhaps may imagine) by a more plentiful Diet. For ſince the Food always adds to the Diſtemper, and is now given at a very improper Time, the Strength being much employed againſt the growing Diſorder, it cannot but prove greatly dangerous and deſtructive.

CHAP. IV.

At what Time BLOOD *is to be let in continual* FEVERS.

SINCE theſe Fevers, which we are at preſent treating of, generally happen to firm and plethorick Bodies, they ſeem principally to require ſuch Aſſiſtance, as may by opening a Vein draw off a Quantity of Blood, leſt being retained in the Body it ſhould be affected with a greater Putridneſs and Heat; and alſo that the Ventilation and Tranſpiration, being promoted by the Diſcharge, may preſerve the Temper of the Veſſels, and as much as poſſible, prevent any Increaſe of Putrefaction. Whoever conſiders this, will eaſily judge that this Remedy is to be applied on the very firſt Days of the Fever. And this ought to be done, not only upon account of the Matter which excites the Fever, but alſo the Strength, which is more firm at the Beginning of Diſtempers, as not being much altered from that which lately preſerved the Body in Health. And generally the moſt proper Day for making Uſe of this Remedy is the Second, or if there is any Impediment, undoubtedly the Third. After this, as likewiſe after the Fourth, Bleeding is not performed either with ſo much Safety or Advantage, ſince the Diſtemper is now much increaſed, and has impaired the Strength,

Strength, and that the febrile Matter begins now to be concocted and separated from the founder Juices: Which Purpose of Nature is disturbed by the Motion and Confusion of the Humours upon Bleeding. For which Reasons *Galen* advises Bleeding early in the Distemper, and not when the morbid Matter is concocted. This Method of Cure ought always to be observed in acute Fevers; first of all to lessen the Plenitude by opening a Vein, and then to purge off the putrid Humours, when concocted, by Stool, Urine and Sweat.

AVICENNA the *Arabian*, and his Disciples, very wrongly condemned Bleeding in the Beginning of Fevers; being led thereto by these trifling Reasons, that they imagined the Mixture of the Bile with the Blood (which was to them an Indication of opening a Vein) could not be made but on the latter Days; and then that they judged Concoction necessary towards letting Blood. This Error, which begun with *Avicenna*, and has been continued down for so many Ages by his Followers, has prov'd fatal to great Numbers of Mankind. For a violent Distemper easily preys upon Man's Life, if the chief Remedy is neglected at the proper Seasons. This certainly is trifling in the *Arabian*, in that (when he watches an Opportunity for opening a Vein) he does not rather consider the Severity of the Disease, and the Strength of the Patient, than the

Mixture of the Bile with the Blood. Which Mixture he judges of by the red and thick Urine; wherefore when this is thin and of a flame Colour, he very religiouſly abſtains from taking away any Blood; as if then the Bile ſtill ſubſiſted alone, and was not united with the Blood, which, when that was let out, would become outrageouſly effervescent. What this Author propoſes, looks rather like a Dream, than any wholeſome Precept. For a Vein being opened, not only the Blood, but all the Humours (which yet are comprehended under the Term Blood) flow out with it; as is evident from the extracted Blood, when once it is grown cold. For there are plainly four diſtinct Juices, when the native Heat is loſt, which before kept them mixed and tempered together in the Body. Now then, if the Matter of the continued Fever is reſident in the Veins, what hinders, but that, when theſe are opened, that Humour ſhould likewiſe flow out with the Blood, which is both contained in it, and creates the Diſeaſe? His other Opinion is almoſt as abſurd, namely, to prepare the Blood by Concoction, before it is taken away. For, a large Veſſel in the Arm, being divided as it ought to be, the Blood is never ſo thick, but that it flows out immediately. I know very well that *Galen* uſed, in a great Crudity in the Veſſels, to attempt a Concoction by the Uſe of attenuating Medicines, before he took away any Blood. But this is

no

no Objection to us, becauſe that State of the Body is void of Strength, upon which account ſolely, and not the Thickneſs of the Blood, the Diſcharge is deferred. Therefore *Galen* follows the ſame Method of Cure here, as he did in thoſe Perſons, who by Reaſon of their Imbecillity ſtood in need of moderate and repeated Evacuations. Thus, when he had taken away a ſmall Quantity of Blood, he made ſome Delay, and having preſcribed an attenuating Medicine, he again opened the Vein, either ſometimes on the very ſame Day, or the next; and then having promoted a Concoction by the like Means, he took away ſomewhat more. And it is plain, that this Method of Cure, which is proper in an infirm State, cannot be applied to a very acute Fever attended with a Plenitude of fervid Blood, and a confirmed Strength; ſince we muſt in this Caſe diſcharge ſuddenly and at once as much as the Strength will bear, and the Vehemence of the Diſtemper requires. But *Avicenna* is yet more groſsly miſtaken, when treating of a *Synochus*, he ſays, that in a Fever attended with a *Plethora*, we muſt evacuate in the Beginning, yet not in too large a Quantity; but more copiouſly afterwards when the febrile Matter is concocted. This *Arabian* was, I ſuppoſe, deceived by that Precept of *Galen*, which we may find in his Treatiſe of the Method of curing by Bleeding. It is better, ſays he, unleſs there be any urgent Occaſion, to make

but a ſmall Evacuation the firſt Time, and to repeat it again a ſecond; nay, and if we ſee proper, a third. But this Caution, *unleſs there be an urgent Occaſion*, was not ſufficiently attended to: For an acute Fever greatly preſſes us to haſten and ſpeedily compleat its Cure. Beſides, *Avicenna* ſeems to have forgot the Advice, which himſelf gives us in another Place; that it is indeed more eligible to divide the Bleeding, unleſs there ſhould be any Neceſſity of haſtening it. But *Galen*, when he thus divides the Bleeding, is ſpeaking, as appears from the foregoing Part of his Diſcourſe, of preventing thoſe Illneſſes, which uſually recur yearly, and reſtraining their Impulſe by averting the Blood from flowing to any particular Part. This certainly is good Advice; that in making a Revulſion, by opening a Vein, the greater Number we divide the particular Diſcharges into, the more efficacious it will prove. I am ſurpriſed that *Avicenna* ſhould not obſerve what follows but little after in *Galen:* When there is a Fulneſs of effervescent Blood, inflaming a very acute Fever, he tells us, it is expedient to make a ſpeedy and entire Evacuation at once, and that we may continue it even to a *Deliquium*, conſulting at the ſame Time the Strength of the Body. And this Author thinks it ought to be done for this Reaſon, that the fervid Humour may not ruſh upon a principal Member. In this Caſe whoever makes but ſlender Evacuations, rather diſturbs

disturbs the Blood, instead of lessening it, and encreases its Heat and Putrefaction. Which Inconveniences, *Avicenna* himself was often sensible of upon other Occasions, tho' he little understood it. When any one, says he, is blooded, who has a great Redundance of Juices in his Body, it is done upon the Account of the Ebullition of those Juices, and it mixes them together, wherefore a frequent opening of the Vein is necessary. Hence it is evident, he imputed that to the Bleeding itself, which ought to be attributed to the diminutive Use of it. These Things are deservedly alleged against *Avicenna*, if he be in an Error, but if not, this Accusation is unjust. However, there seems to be Room for some Conjecture in this Affair. For tho' in the first Book of his Canons, he has ill-judged; that, in a Fever of the continent Kind, it is necessary that the Evacuation be but small in the Beginning, but more plentiful after the Concoction; yet on the other Hand he has very truly affirmed in his fourth Book; that the Intention in the Cure of a Fever is to discharge a large Quantity of Blood, even to a *Syncope*; and afterwards, that no other Kind of Evacuation is so advantageous, as opening a Vein in the Arm, at what Season soever it be made, and that without waiting for the Crisis or Concoction of the Matter. And you must not, says he, cease drawing off the Blood, till the Patient be entirely faint, or at least very near it. What, I pray, can

be more repugnant than these Places, which both treat of the same Fever, and same Bleeding? We may indeed observe *Avicenna*'s Advice, when he tells us, that we must evacuate but sparingly at first, and more liberally afterwards as the Disease draws near to a Crisis, if we understand this of a *purging* Medicine, and that of a *lenient* one only; but that it cannot be taken in this Sense, and that this Author is altogether discoursing of opening a Vein, is evident from the whole of his Treatise. His Precept therefore must be rejected as erroneous and full of Danger. And in a great Fever, where the Strength will bear it, Blood must be taken away at once in the Beginning, lest its great Quantity, by not being sufficiently discharged, should supply Matter for a very great Feverishness and Putrefaction. Which Danger the incomparable *Galen* being well aware of, diligently advises us in a *Synochus* and violently burning Fever, to draw off Blood, at the very Beginning, even to a Faintness. In as much as then the Strength of the Body being eased of a Load of Humours, would become more agile, as well as more capable of throwing off the Residue of the Distemper, which would prove laborious in the latter Days, when the opening of a Vein is useless.

WHEREFORE, some of our modern Physicians also incur no small Censure, who, though in the Beginning they have once judiciously let Blood, yet observing the Symptoms

toms to run high, (the Diſeaſe ſtill encreaſing and drawing near a Criſis,) and being terrified with their Violence, and induced by the Redneſs of the Urine, they again open a Vein on the *eighth*, *ninth*, and even the *tenth* Day. Others are ſo extreme raſh as to repeat the Bleeding on the *eleventh* Day of a continual Fever, nay, and on the *twelfth*, or *thirteenth*, under the moſt violent Symptoms, when Nature and the Strength are greatly afflicted. Sanguinary Wretches indeed! who joining their Forces with the moſt grievous Diſtemper, endanger the Welfare of their Patient. For firſt, they are deceived in this, which is very abſurd, that they meaſure the Neceſſity of Bleeding by the Vehemence of the Symptoms. Since by a freſh Evacuation they weaken the Powers of the Body ſtruggling with thoſe very Symptoms, and diſturb Nature who is upon her Guard againſt the Diſtemper. But if *Galen*, when an acute Fever was ſomething advanced, did not bleed a Perſon, in whom it had been omitted in the Beginning, but truſted ſolely to the Drinking of cold Water; with what Confidence will they dare to bleed a Man a ſecond Time near the State of the Diſeaſe, when they had once done it in the Beginning? How little do they underſtand the Precept of *Hippocrates*, wherein he orders the greateſt Reſt, and an Abſtinence from preſent Remedies, when the Diſtemper runs high. For at this Time every Thing is in extremes: The feveriſh Heat, Drought,

Drought, Inquietude, Watching, Deliriouſneſs, Drowſineſs, and the like; which ſo fatigue Nature, that if any other Violence or Diſturbance ſhould accrue from the Imprudence of the Phyſician, ſhe would very eaſily ſink under the Diſtemper. Add to this, another Inconvenience in the peccant Humour, which is extremely great, and which I conceive to have been hitherto unobſerved by any one: Namely, that when the putrid Humour is almoſt concocted and ſeparated by the Force of Nature, the Juices in the Veſſels being diſturbed by Bleeding, it is mixed with the ſound, and the Deſign of Nature is wholly ſubverted. In truth, the whole Matter ſtands thus: As ſoon as a continued Fever ariſes from putrified Humours; Nature, which is then powerful and never forgetful of her Office, attacks the corrupted Humour with great Violence, altering, ſubduing, concocting and ſeparating it from thoſe that are pure; that theſe being preſerved, ſhe may drive out that which is offenſive to her. For Nature never throws off any Thing rightly, which ſhe has not before ſeparated by a due Length of Time. Before this Work can be undertaken to purpoſe, that Matter which is ſuperfluous in the Veſſels, muſt be diſcharged at the very firſt, by opening a Vein; for by this Means, Nature will much eaſier and ſooner overcome that which remains. This Remedy being adminiſtred in the Beginning; on the latter Days,

when

when Nature has now for ſome Time begun to attack the putrid Humour, much Reſt is required, and all Agitation of the Juices to be avoided, by which Concoction and Separation may be interrupted. Therefore at this very Time we muſt by no Means provoke the Body by any ſecond Bleeding. Beſides, if Nature is almoſt ſpent in ſubduing the Diſeaſe and bringing it to a Criſis, how, I pray, can ſhe be ſupported, when ſinking under the firſt Labours of Separation, ſhe is forced to attempt new ones, and thoſe very tedious? I have ſeen great Numbers ſo unſeaſonably evacuated, that, a great Difficulty of Breathing coming on, and a violent *Delirium*, and after this a Drowſineſs, it has put a Period to their Lives. The Inconvenience attending the Perturbation and Confuſion of the Humours, on the firſt *four* Days of an acute Fever, is but ſmall; ſince Nature is now not far advanced in the Concoction, and has not been much exerciſed with the Symptoms. Therefore *Celſus* has likewiſe told us that the firſt four Days are proper to bleed in, and thoſe that follow improper; for that the Evacuation may weaken the Body, but cannot reſtore it. And that Ornament of our Age, *Fernelius*, following the Steps of the Ancients, was of Opinion, when there were any manifeſt Signs of Concoction in Diſeaſes, that the Remainder of the Cure was to be carried on, not by Bleeding any more, but by Purging, and other Remedies; unleſs,

unleſs, what ſometimes happens, any Signs of Crudity ſhould diſcover themſelves afreſh. But *Galen*, it may be objected, has told us that we ought in letting Blood not to regard the Number of Days but the Strength; and that he bled on the ſixth, ſeventh, and even the eighth Day of the Fever. His Advice may take place in intermittent Fevers, which are naturally longer, and wherein the Concoctions are both ſlow, and the Strength becomes more laſting, ſo that for theſe Reaſons the opening a Vein may be ſafely deferred for ſome longer Time. And that Precept may ſeem to be meant of a *Synochus* not putrid, ſince in that Place *Galen* is diſcourſing of that very Fever. For the Cure of this, as it ariſes from a Redundancy of fervid Blood without any Putrefaction, is perfected, when the Plenitude is abated by Bleeding, and the fervid Juices are tempered by cooling Medicines. And as in this Caſe there is no Putridneſs, ſo is there no Concoction requiſite, neither is the Strength greatly afflicted. Therefore Blood may be taken away on any Day whatever. But in a putrid and continual Fever, we muſt have a Regard to the Strength and the Concoction, which on the latter Days of this Diſtemper forbid opening a Vein, as I have already mentioned. But if a *Synochus*, which is not putrid the firſt four Days, ſhould become ſo by the Neglect of Bleeding, then Blood may be taken away even on the fourth Day after the Putrefaction, which is now reckoned

reckoned the eighth from the Beginning of the Fever. This is certain, that in a continual Fever, we cannot ſafely open a Vein after the fourth Day, from the Beginning of the Putrefaction; and this not only upon account of the Strength, which is then ſomething weakened by the Violence of the Symptoms, but of the Matter alſo, which, being by this Time much concocted and ſeparated, is diſturbed and mixed together by a freſh Bleeding. But it will be objected, that we may give purging Medicines when the Fever is pretty much advanced; and that therefore we may likewiſe let Blood; as what will much leſs diſturb the Body, and move the Humours than a Medicine. But in truth, this Medicine does not mix the Juices by this Perturbation, but draws off only ſuch as are concocted and ſeparated, and thus furthers Nature's Deſign; but opening a Vein, ſince it does not let out the peccant Humour only, but all the Blood together, diſcharges little of that which offends Nature, and confounds that which is ſeparated with the more benign Juices. And it may be farther urged, that if *Galen* repeated the Bleeding, when the Strength was weak, and could not bear a full Quantity to be diſcharged at once; why may we not likewiſe imitate him, when the Strength can bear it, ſince it will receive leſs injury, by drawing off the Blood at ſeveral Times on different Days, than by taking it away all at once? But as this very Practice may take

Place

Place in ſound Perſons, and in Diſtempers naturally long; ſo it cannot in acute Fevers, in that theſe require profuſe Evacuations in the Beginning. But in theſe if the Strength (which rarely happens) ſhould not anſwer, we muſt indeed divide the Evacuation, but not into ſeveral Days; ſince it ought to be done on the ſame Day, one while at the Diſtance of one Hour, at other whiles of two, and the Patient may in the mean Time be refreſhed with proper Nouriſhment. Neither ought we to imitate *Galen*, by deferring the Repetition for many Days, in continual Fevers, when the Humour is obſtinately fixed, as for inſtance in Tumours of the internal *Viſcera*. The Reaſon of Evacuations is entirely different in Diſorders, in which the Matter is diffuſed thro' the Veſſels of the whole Body, as in continued Fevers, and in thoſe where the Humour being extravaſated has ſtubbornly poſſeſſed any particular Part of the Body. In an acute Fever, a Diſeaſe undoubtedly univerſal, we may certainly take away Blood in the Beginning before the Heat and Putrefaction are confirmed; and that univerſally and at once, and if the Strength permit, oft-times even to a *Deliquium*. For the Body requires ſuddenly to be changed into another State. But if any one ſhould in this Kind of Fever, take away a ſmall Quantity of Blood at the Beginning, and two or three Days after take away juſt as much more, he would certainly, as he did it without any Neceſſity,

Neceſſity, be far from doing any Service, but rather Injury by protracting the Diſtemper. But on the other hand, in Diſeaſes of the Parts, and particularly Inflammations, ſince the Humour is without the Veins, and ſtrongly fixed, dividing the Evacuation may not be uſeleſs; for in this interval the impacted Humour paſſes again into the Veins, and is advantageouſly drawn off by the ſecond Operation. This Repetition, when urged by internal Inflammations, ought to be made on the three firſt Days, but in other Tumours which are not inflamed, very often later. Thus in curing a ſchirroſe Spleen, *Galen* adviſes us to repeat the Bleeding at greater Intervals. Now to obſerve this Precept in an acute Fever, would be deſtroying the Patient entirely. *Avicenna*, in his Treatiſe of curing putrid Fevers, has likewiſe given us a very deſtructive Precept, eſpecially if it be underſtood of ſuch alſo as are continual. And my Advice, ſays he, in opening a Vein is, that it be omitted as much as poſſible; but if this cannot be, repeating the Operation is much better than taking a Quantity at once. But I believe it is now plain from what has been ſaid, that we muſt always haſten the Bleeding in the Beginning of acute Fevers, ſeldom divide (unleſs when the ſlender Strength requires it) and never defer it to the latter End of the Diſeaſe. So that the Blindneſs of many Phyſicians is the more to be lamented, I will not ſay deteſted, who neither take pains to find

find out the Error committed in this Affair, nor, when 'tis found out, to follow a ſafer Method of Cure. And I have ſeen many, who being thus ill-uſed by other Phyſicians have periſhed, whoſe End I could preſage many Days before, both from obſerving the Vehemence of the Diſtemper, and the infirm State of the Strength, and alſo from this ill-adviſed and unſeaſonable Bleeding. I know indeed, it ſometimes happens in Fevers, either thro' the Negligence or Timidity of the Patients, or from other Cauſes, that Blood is not taken away before the fourteenth, nay and ſometimes the twentieth Day; which may even then be done ſucceſsfully, if ſo be the Signs of Plenitude and Crudity ſtill continue, and the Strength will likewiſe bear it, as not being much weakened by the Length of the Illneſs. But it muſt be obſerved, that this cannot be underſtood of Diſeaſes perfectly acute, and continually labouring under a very violent Agitation of the Symptoms, ſince their Concoction and Solution is more expeditious. For Nature cannot long ſuſtain an extremely violent Diſtemper, but that it muſt either ſink under, or elſe ſubdue it. So that to defer Bleeding in this Caſe muſt be dangerous. But in thoſe continued Fevers, which reach perhaps to the twentieth Day or more, as being pituitoſe, or melancholick, and wherein the Concoctions are not ſo ſpeedy, nor the Symptoms (by which the Strength is certainly injured) ſo ſevere, ſo that retarding the

the Bleeding may not be attended with any conſiderable Danger. And the Liberty of poſtponing this Remedy is much greater in thoſe Fevers, which intermit, and which naturally run into a great Length, ſuch as are the *Quartan*, and *Quotidian*. To which Caſe may be referred that of *Avicenna*, that opening a Vein even on the fortieth Day may be uſeful. And in truth, what we have above laid down, is, in all Caſes, perpetual; namely, that the Evacuation is not prohibited by the Number of Days primarily and ſolely, but that by the greater Length of Time, either the morbid Matter is concocted, or the Strength of the Patient weakened.

FARTHER, though we have hitherto fully demonſtrated, that opening a Vein is more immediately adapted to the Beginning of theſe Diſtempers; yet there are ſome things, which being diſregarded or overlooked, Blood cannot be taken away either with Conveniency or Safety. In this Number is the Crudity of the Food lately taken in, and which is not yet thoroughly digeſted in the Ventricle, eſpecially, if at the ſame Time, the Belly be likewiſe loaded with Excrements. For if a Vein be then opened, either ſomething crude from the Stomach, or elſe ſomething foul and putrid from the Belly may be eaſily drawn into the Veſſels, which upon the Evacuation are grown empty, and in want of ſome Supply. Which Inconvenience will be the greater, by how much more the

Evacuation has been profuſe. And the greateſt in that Synochus, wherein the Blood ought to be evacuated even to a *Deliquium*. Therefore the Ancients, as well in this, which yet requires a ſpeedy Evacuation, as in any other continual Fever, wiſely deferred the Uſe of this Remedy, until the Food was inwardly concocted, and the Belly eaſed of its Load. If Nature cannot perform this herſelf, we muſt aſſiſt the Concoction with Time and Quietneſs, and looſen the Belly with a Clyſter or Suppoſitory; or if the Patient is averſe to theſe, with *Caſſia*, *Manna*, Decoction of *Prunes*, and ſuch like Lenitives, taken in at the Mouth.

BESIDES this Crudity, which was ſolely regarded and corrected by the Ancients before the opening a Vein, eſpecially in acute Fevers, which demand large Evacuations, it is fitting likewiſe to obſerve ſome other Things, which retard the Bleeding, but yet ſo that we may ſometimes paſs them by, if the Urgency of the Fever forbid any Delay. However it is much more eligible to obſerve and remove them, if the Diſtemper will permit the leaſt Delay whatever. Thus if any impure Humour, reſembling the Nature of the Bile, be contained in the Ventricle, or the adjacent Veins, it is profitably drawn off by any mild Medicament, before we bleed, ſo that it only throw out the putrid Matter in the firſt Paſſages, without any Violence, or Exagitation of the Body and Blood. And for this

this Purpose the following Draught is, in my Opinion, very proper; namely, about two Drachms of *Rhubarb* macerated in three Ounces and half of a Decoction of *Prunes*, or *Barley-water*; half an Ounce of *Diacatholicon*, and one Ounce of Syrup of *Roses*. If Phlegm should be likewise mixed with the Bile, *Agarick* and *Rhubarb*, of each about one Drachm, may be macerated with the other Things just now mentioned, for the Sake of giving them in the Form of a Potion. But if the Humour, which is contained in the common Ducts, should tend upwards toward the Stomach, it must be thrown off by a Vomit made of warm Water and *Syrupus Acetosæ* given to the Quantity of a Quart. After this, the Stomach must be refreshed with some Crumb-bread steeped in the Juice of *Pomegranate*, the Body kept quiet for some time, and then a Vein must immediately be opened. As this Method of Cure is always to be observed, if possible, so at that time, more particularly when the yellow Bile (which creates great Nausea and Disorder, especially if the Patient be fasting) has seized the Stomach. It is likewise very dangerous to take Blood away, when the Stomach (which I call the Mouth of the Ventricle) is either weak, or has too exquisite a Sensation. It is of such Importance to remove this Complaint before we open a Vein, that, unless it be done, it is often attended with very great

Danger, and ſometimes Death itſelf, as we are taught by *Avicenna*.

IN the next Place, we muſt ſettle the Point of Time wherein Blood may be taken away to the greateſt Advantage. In which Caſe I find many unſkilful Perſons to err daily, who are ſo afraid of the Afternoon and Night, that, although at theſe very Seaſons the Fever appears much abated, yet had rather wait for the Morning, notwithſtanding the Fever, (as it ſometimes happens) may be then at the Height. Others again, are ſo terrified with the malign Aſpect of the Stars, that they dangerouſly defer this wholeſome Remedy to an improper Time of the Diſtemper. The Caſe ſtands thus. The Stars may indeed have no ſmall Influence, but yet I think the Violence of the Symptoms is of much greater Conſideration, ſo that proper Remedies are to be applied, as theſe more particularly require. Therefore, whenever there appears the greateſt Remiſſion of the Fever, then is the moſt ſuitable Time to open a Vein. *Celſus* ſays, that to take away any Blood in the very Height of a Fever, is to kill the Patient. Wherefore if the Fever be found to abate either in the Evening, or in the Night itſelf, and to rage moſt in the Morning, that Time is undoubtedly to be preferred to this.

THIS Obſervation is uſeful in thoſe continual Fevers, which prevail every third Day, and likewiſe in continued Quartans and Quotidians,

tidians, in which, ſince the Paroxyſm does not always fall on the ſame Time of the Day, we muſt vary the Bleeding, and perform it one while in the Morning, another while at Noon, often in the Evening, and even (which is ſometimes neceſſary to be done) in the very Dead of the Night.

BUT if in theſe Fevers, an equal Remiſſion ſhould happen twice in one Day, to wit, either in the Morning, or at Noon, or in the Evening, or elſe the Night; or if it be a putrid *Synochus*, which retains the ſame Vehemence of Acceſs, till it be ſolved; or elſe proceeds either in continually declining, or always encreaſing: Then indeed we muſt take the Morning Seaſon, as being that wherein the Patient is moſt calm and eaſy. Add to this, that the Patient is in better Temper, and the Blood being cheared by the Warmth of the Sun, is better diſpoſed to flow forth. And tho' this be the more convenient Seaſon, the Vein muſt not be opened immediately upon waking, but an Hour or two after. It is likewiſe farther neceſſary, that the Excrements of the lower Belly and Bladder ſhould be firſt evacuated, eſpecially, if a large Quantity is to be drawn off. And to the Morning, if we regard the Clemency of the Seaſon, ſucceeds the Evening; for the Noontide by its great Heat, and Midnight thro' the Rigour of the circum-ambient Air, render this Kind of Remedy leſs ſafe.

CHAP. V.

Of the VEIN *which is to be opened in continual* FEVERS, *and what is to be done in the Bleeding, and afterwards.*

HAVING already laid down the proper Time for Bleeding, we must now see, which Vein ought particularly to be opened. Since a continual Fever generally attacks Persons of a full Habit, and requires a speedy and profuse Discharge, whereby the Load of Humours may be drawn off, and the Body sufficiently cooled and changed into another State; the inner Vein of the right Arm seems in this Case the most proper to be opened, as being propagated in a direct Path from the Liver, the Spring and Origin of the Blood. But if this does not lie open enough to the View, we must then open the middle one. And we ought to take the Bending of the Arm and not the Hand, because as the Veins in this Part are slender, in the other very large, and nearer the Trunk of the Body, it happens, that the Blood being taken away in the Flexure of the Arm, it (what is particularly required in these Kinds of Fevers,) both suddenly, and greatly empties and alters the Body, on the Hand on the contrary, more slowly and less. Wherefore

fore the immoderate Timidity of ſome Men is the more to be rejected, who, in an acute Diſeaſe, decline opening the larger Vein of the Arm, contenting themſelves with the jecorary Vein on the Hand. If there be any who are naturally very timorous, or whom any innate Particularity, dejected Strength, or Diſorder in the Stomach, render prone to fall either into a Faintneſs, or a Syncope; theſe are much ſafer blooded on the Hand, and others on the Arm. *Avicenna*, very abſurdly orders us to open a Vein in the Forehead, when it cannot conveniently be done in the Arm. In as much as this draws the redundant, putrid, and mobile Humours towards the principal Part, and endangers the bringing on a *Phrenſey*. Beſides, this Vein ſerves only to evacuate the Head, and not the whole Body. Wherefore *Galen* recommends its Uſe in Heavineſſes, and inveterate Pains of the Head from Fulneſs. But ſays that we ought to evacuate the whole Body firſt.

FARTHER, in an acute Fever, which requires an affluent Diſcharge, *Avicenna* rightly adviſes us to lay the Patient on his Back: For this Situation of the Body leſs fatigues the Strength, than if he either ſtood or ſat, in which there is required a greater Effort of the animal Powers. But the Inteſtines likewiſe, and *Viſcera*, ſince they hang down from the *Præcordia*, when a Perſon ſtands or ſits upright, moleſt the vital and

natural Powers, and haſten a Faintneſs, as alſo, if the Inciſion in the Vein be too large. For ſuch a one throws out more of the vital Spirits, a ſmaller one leſs. If a Faintneſs is near at Hand (which may be learnt from the Change of the Countenance and the Pulſe, as alſo from the Yawning, Stretching, Ringing in the Ears, Dimneſs of the Sight, and from a Decay of the Impetus in the Flowing of the Blood) we muſt immediately ſtop the Flux by looſening the Bandage, and preſſing the Orifice with the Thumb, leſt, Death itſelf ſhould either enſue inſtead of a *Deliquium*, which, *Galen* tells us, happened to the three Phyſicians, whom he knew; or certainly, leſt the Strength ſhould incur that Damage, which cannot be repaired for ſeveral Years. In like manner, the Patient lying upon his Back, ought to be reſtored to himſelf, by throwing cold Water on the Face, or rubbing the extreme Parts, and refreſhed either by the Scent of Wine, or Aromaticks, and the Juice of Pomegranates, or Capon-Broth.

AFTER a ſufficient Quantity of Blood has been drawn off in Proportion to the Strength, and the Magnitude of the Fever, the Body muſt be compoſed to Reſt, by which Means the loſt Spirits and the Patient's Strength may be recruited; and this will likewiſe be beſt done by lying on the Back, all the *Viſcera* gently reclining on the Spine of the Back, and by this equal Situation mutually

ally imparting to each other a greater Quantity of Spirits and Heat. And this Reſt muſt be without Sleep, unleſs a very profuſe Diſcharge has been made, which ſhould greatly impair the Strength. In which Caſe, *Galen* indulged his Patients with Sleep, having firſt given them ſome light Food, ſuch as Barley-Water, or Chicken-Broth. Having fully treated of evacuating in Fevers by Bleeding, it is now Time to ſay ſomething about ſupporting the Strength, which is always to be ſo regarded, that it may not be weakned either by Bleeding, or any other neceſſary Method of Cure, no not by the Violence of the Diſeaſe itſelf. And this is ſupported by proper Meats and Drinks, concerning which we now propoſe to ſay ſomething in general, and to add likewiſe the proper Method of adminiſtring them, in the Beginning of the Diſeaſe we are now treating of.

CHAP. VI.

Of the Manner of Diet to be obſerved in continual FEVERS.

GREAT Care ought to be taken of the Diet, not only in other Diſtempers, but particularly in acute Fevers; which, as it is either duly regulated or neglected, greatly

ly relieves or incommodes the Sick. *Galen* adviſes us in all Fevers chiefly to regard the Concoction of the Food, ſince if it ſhould not ſucceed well, either in the Ventricle or in the Liver, it will encreaſe, and by the Viciouſneſs of its Juice inflame the Fever. How judicious is *Celſus*'s Remark concerning Perſons in Fevers! The beſt Medicine, *ſays he*, is Food ſeaſonably given. Wherefore I am the more aſtoniſhed at the Stupidity of ſome, who boaſt of their great Practice, and yet ſo little regard, or, what I rather believe, are entirely ignorant of this Part of the Cure, that they either nouriſh their Patients, when Aliment is deſtructive, or elſe ſtarve them, when their Recovery depends wholly upon the giving proper Food. Wherefore, I think, I ſhall do well, in firſt laying down the whole Method of Diet in general, ſuited to acute Fevers, and then ſhewing of what Matter and Quality it ought to be, and in what Quantity, at what Time, and in what Manner it ought to be taken. Wherein, I hope, I ſhall give Satisfaction to Men of Learning, and who are deſirous of being fully inſtructed in this Affair.

HIPPOCRATES, who gave us the firſt and moſt exact Rules concerning Diet, divides it into thick and thin. Under the laſt are comprehended ſuch Things as are either ſupped up, or drunk; under the former ſuch as are eaten; the groſſer he appropriates to chronical Diſeaſes, the thinner to acute.

But,

But, as all acute Diſeaſes are not equally violent, nor of equal Duration, ſo there ought to be different Degrees in the Thinneſs of the Diet. Therefore the ſame Author propoſes that this Diet ſhould be ſometimes thin, at other Times exactly thin, and at others, the thinneſt poſſible. And theſe three ſeveral Kinds of Aliment, *Hippocrates*, in his Treatiſe upon Diet in acute Diſeaſes, diſtinguiſhes into entire Ptiſan, the Cream of Ptiſan, and Hydromel. The entire Ptiſan, as having the whole Subſtance of the Barley, ſupplies the Place of thick Suppings, and conſtitutes the thin Diet. The Cream, or ſtrained Liquor, is a thin Broth, and reſembles the exactly thin Diet. But Hydromel, *Hippocrates* affirms to be the thinneſt poſſible, which *Galen* ſays, is next to an entire Abſtinence from both Meat and Drink.

To determine therefore preciſely, which Kind of thin Diet is moſt adapted to every acute Fever, it muſt be obſerved, that we are to be guided, as in this, ſo in other Diſtempers likewiſe, by the Degree of the Strength, not only preſent, but future. And we muſt alſo farther remark at what Time the Diſeaſe will run higheſt, for according to the Length of that, the Strength is variouſly affected. And for the Sake of this only, is any Aliment given to the Sick, and not upon the Account of the Diſtemper, which neither indicates or requires Food, but always forbids it. Wherefore it is then

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more eſpecially neceſſary to relieve the Sick with proper Nouriſhment, when the Strength is weak; and then again to uſe Abſtinence, when the Fever, by the Greatneſs and Vehemence of the Symptoms, moſt afflicts the Strength which is not very infirm. Thus, *Hippocrates* wiſely remarks in his *Aphoriſms*: When a Diſeaſe grows very acute, its Efforts become immediately extreme, and the thinneſt Diet poſſible muſt be made uſe of. And ſpeaking afterwards of the Strength, he ſays, we muſt take our Conjectures from the Patient, whether or no he will be able to hold out with the Diet preſcribed, till the Diſtemper ſhall be at the Height, or whether he will not with ſuch Diet firſt languiſh and ſink, before the Illneſs yields and abates. But it is to be obſerved, that if the Fever be vehement, and the Strength at the ſame Time extremely infirm, greater Regard muſt be had to the Strength than to the Diſeaſe, and that we muſt then ſuccour our Patients with eaſy Food. Which I find *Hippocrates* to have done, who ſometimes, in the Height of an acute Fever, when by the Intervention of any Symptoms the Perſon's Strength was remarkably endangered, confidently ordered Food. In which we muſt likewiſe follow him, eſpecially, if there ſhould be any profuſe Evacuation, which, by delaying any Time, would certainly prove dangerous. Such are the unexhauſted Sweats in ſome malignant Fevers. Such is a continual Looſe-

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neſs in colliquative Fevers, which by conſuming the Body enfeebles the Strength. In like Manner, when Fevers are at the Criſis, the Blood oftentimes breaks forth with ſuch Violence, and in ſo great a Quantity, as to endanger the Lives of the Diſeaſed. And this is a real and dangerous Sinking of the Strength, which ought, beſides the Removal of the Symptom, to be relieved by proper Nouriſhment; on the contrary, that, which ſucceeds to the Violence of the Diſtemper, and not any Evacuation, puts on a falſe Appearance of Imbecillity. Want of Judgment in this Caſe, expoſes ſome to great Errors in their Practice; who, when they obſerve their Patients, in the very Criſes of Fevers, to be tormented with Pain, Inquietude, Thirſt, and Watching, in order to recruit the infirm Strength, with the utmoſt Danger preſcribe Food, which, becauſe it is not concocted, adds to the Diſeaſe, and augments the Violence of the Symptoms. Thus far concerning the Strength.

FROM the Diſtance of the Fit, muſt we likewiſe carefully ſee, that a proper Kind of Diet be inſtituted. For as a Perſon going a Journey, provides, as it is either long or ſhort, a ſufficient *Viaticum* to ſupport himſelf to the End; ſo likewiſe muſt the Patient be variouſly nouriſhed, according to the Length of the Diſtemper, leſt his Strength ſhould fail. And this Obſervation takes place, not only in the Matter of the Aliment,

ment, but alſo in the Quantity. For the farther the Fit is off, ſo much the more plentifully muſt the Perſon be nouriſhed; the nearer it is, ſo much the more thinly and ſparingly.

AND there are ſome Conjectures, by which we may pretty certainly foretel the Time of the future Paroxyſm. Namely, the very Kind of the Fever itſelf (which likewiſe comprehends its Matter and Motion) and the Symptoms conſequent upon it, likewiſe the Quickneſs and Slowneſs of the Concoction, and the Time of the Year. Therefore the burning Fever, by the *Greeks* called Καυσώδης, which is excited by the Bile in the Summer Seaſons; as alſo the putrid Synochus, when once they are ſwiftly carried on, and attack the Patient with the moſt grievous Symptoms, particularly a great Inquietude, the Concoction of the febrile Matter being at this time haſtened on, are ſolved for the moſt Part on the *fourth* Day, eſpecially if the Concoction begins to appear on the *firſt*. But, ſhould there be no great Inquietude, and the Heats yet continue with Watchings and a Pain of the Head, and the Concoction ſhould likewiſe firſt appear on the *fourth* Day, the End of the Diſtemper may be expected by the *Greeks* and *Italians* on the *ſeventh* Day, and by our own Countrymen, on the *ninth*. But thoſe continual Fevers, which conſtantly remit every other Day, generally attain their full Growth and Solution on the

the *eleventh* Day, if the Concoction evidently began on the *fourth*. But if, the Impetus of the Fever being abated, the more ſevere Symptoms ſhould likewiſe intermit on the beſt Day, they are generally ſolved on the *fourteenth*, which is the Term of all Diſeaſes truly acute. Though we may ſometimes meet with acute Fevers, which are continued to the *twentieth*, nay and even to the *fortieth* Day, in which a more plentiful Diet muſt always be preſcribed. For a very thin Diet could not ſupport the Strength thro' ſuch a Length of Illneſs. But whatever Length continual Fevers may run out to, yet there is not one of them, that does not undergo ſome great Change on the *fourteenth* for Health or Death, or certainly for the better or the worſe. *Galen* tells us, that never any Diſtemper, however violently it might be carried on from the Beginning, paſſed that very Day without one of theſe Changes. I mention this for the ſake of *Hippocrates*, who writes that acute Diſeaſes are finiſhed in *fourteen* Days. *Galen* indeed thought that an acute Fever might take a Turn for the better or the worſe on the *fourteenth* Day, and end in Health or Death on the *twentieth* or the *fortieth*. In this Caſe, the beſt Method of ordering the Diet is, during the Vigour of the continued Fever to give ſuch as is ſuited to acute Diſeaſes, and as the Diſtemper grows milder after the fourteenth Day, to perſiſt in the ſame thin Diet for

for two Days, and after that to proceed gradually to a more plentiful one.

THE Ends of Diet being abundantly explained, we muſt now ſee what Kind of Aliment and in what Quantity it ought to be given, as each Fever continues. Some medical Writers, in Imitation of the Ancients, lay down theſe following Rules: If a continual Fever is likely to ceaſe on the *fourth* Day, the Strength being pretty firm and the Habit full, an entire Abſtinence from Meat and Drink is uſeful; but if the Strength be any Thing afflicted, then it is lawful only to give Potables. When the Criſis will be on the *ſeventh* Day, in this Fever there is Room for thin Spoon-meat; namely, the Cream of *Ptiſan*. Neither is this improper, if the Fever ſhould be ſolved on the *eleventh* Day, unleſs for the Sake of Supporting the Strength, the Patient ſhould require a more groſs Diet; namely, the entire *Ptiſan*. But if the Solution of the Diſeaſe ſhould be deferred to the *fourteenth* Day, then muſt he uſe the groſſer Spoon-meat. But theſe Precepts, tho' agreeable to the *Greeks* and *Italians*, yet muſt they not be imitated by the *Northern* Nations, as being accuſtomed to feed oftner and more plentifully. For who could ſafely confine one of our Countrymen in an acute Fever to a four Days abſtinence from Meat or Drink, or refreſh him only with Potulents without any other Nouriſhment for ſeven Days without Danger or Loſs of Strength? I

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pass by the Calumny of the Vulgar, who, if the Patient should die, cry out immediately that he was starved to Death, and not destroyed by his Distemper, to the great Disgrace of the Physician. And though we may have the highest Contempt for the Exclamations of the People, who too often unjustly blame our Art, yet Reason and *Hippocrates* himself teach us, that a too slender and severe Method of Diet is unprofitable, and dangerous. For if any Errors are committed through the Fault either of the Patient or Physician, they are but ill-brooked by a Person weakened by immoderate fasting. If *Hippocrates* would have this Precept observed on his own Countrymen the *Greeks*, it is much more reasonable that we should follow it among ours, who are led by Nature, Climate and Custom to a more plentiful Diet. This must certainly always be regarded, that the Patient be not loaded with any superfluous Matter, or be too much enfeebled by Hunger. In my Judgment therefore where the *Greeks* prescribe Abstinence, we should give Potulents, and for their Potulents we should give Spoon-meats; and for these we may indulge even those Things which may be eaten. Of such Force is the Custom and Nature of Mankind. Thus I find it written in *Hippocrates*: We ought, says he, to conjecture both the Strength and Measure of every Distemper, as likewise the Nature of the Patient, and his Manner of living not on-

ly with reſpect to Meats, but alſo to Drinks. And again in another Place: We muſt obſerve whom it may be proper to feed even once or twice, and in a greater or leſs Quantity, and by little and little at a Time; but ſome Allowance muſt be made for the Seaſon, Country, Age and Cuſtom. However, we muſt not feed our Countrymen too plentifully, as being generally attended with ſome Crudities, upon the Account of their Voraciouſneſs and groſs Aliment, which may be ſafely corrected by a ſeaſonable Faſting, eſpecially at the Beginning of Fevers. Of this Opinion I take *Celſus* to have been, when he tells us that the Beginnings of Diſeaſes require Abſtinence from eating and drinking.

WE have treated hitherto of the Kind and Meaſure of Diet which is uſeful in continued Fevers; we muſt therefore now add the Quality, which undoubtedly ought to be humid and cooling. A moiſt Diet, ſays *Hippocrates*, ſuits Perſons that are feveriſh. Since every Fever is a hot and dry Diſorder, and therefore requires a cooling and humid Diet, much more indeed ſhould that be done in thoſe continued Fevers which we now treat of, in which the Heats are not only extremely great, attended with a Drought, but alſo continual. A moiſt Diet is likewiſe ſooner concocted than a dry one, as being more eaſily diſſolved and diſtributed. *Trallianus*, a *Greek* Author, recommends in theſe Fevers a Diet, which is capable of attenuating, (for in this

this Caſe he ſays there is much groſs Matter,) and moiſtning without heating and inſpiſſating. Humid Food, ſays *Celſus*, is beſt adapted to feveriſh Diſorders, or that which comes neareſt to it, as being made of the lighteſt Materials, and eſpecially Spoon-meat: And this in great Fevers ought to be the thinneſt poſſible.

WE come now to ſhew when Food ought to be given. When the Fever is moſt mitigated, the Patient ought to receive ſome Nouriſhment, becauſe the Body is then nearer to a ſound State. It is certainly the beſt Method, always to defer giving any Food as much as poſſible from the Impetus of the Fit, and give it, as much as may be, when the Body is in the beſt Plight. Therefore in a continued Tertian, ſince one Day is milder, and the other ſeverer, it is much better to preſcribe Food on the former. The ſame may be done in a Quartan, on the two intermediate Days, unleſs a Weakneſs ariſing ſhould require ſome Food even on the Day of the Fit. And in a Quotidian when the Fever is remitted. But if the Synochus ſhould be putrid, which always attacks with an equal Impetus, or gradually either increaſes or decreaſes, ſome convenient Time of the Day ſhould be choſen. This, ſays *Celſus*, ſome take to be at Midnight, the Evening being then long ſince paſt, at which Time the Patients are generally at the worſt. However he thinks it ſafe to give it towards Morning,

when moſt Perſons commonly ſleep beſt, or laſtly in the Morning itſelf, which is naturally the mildeſt Time of all. But in this Caſe I cannot entirely agree * with *Celſus*; firſt, becauſe the Advantage accruing from Sleep, to which the Patient is in the Night more inclined, may be interrupted; ſecondly, becauſe the Uſage of our People, which is certainly of great avail in this Matter, is entirely againſt taking any Nouriſhment at this Time. Wherefore, in my Opinion, the Day-break ought to be preferred; for ſince the Sick are generally moſt quiet at that Time, the Food is followed by a kinder Sleep, and more eaſily concocted in the remaining Part of the Morning, which is generally very mild. Theſe Precepts however are not ſo ſtrictly to be obſerved, but that the Patient muſt at all Times be refreſhed whenever he ſtands in need of it. But in this, as well as many other Caſes, *Celſus* has wiſely adviſed us; ſince the Sick ought always to be full of Hope and Aſſurance, that they be not diſordered in their Minds as well as Bodies, more eſpecially ought they ſo to be after having taken any Food. Therefore if any Thing ſhould happen, which might exaſperate them, and which cannot or ought not to be concealed, it ought undoubtedly not to be diſcovered

* This Diſagreement between our Author and *Celſus*, ſeems owing either to his miſquoting him, or having but a bad Edition of him, however that be, I have given the Senſe of this Paſſage according to *Almeloveen*'s Edit. and not according to our Author's Quotation, which does not appear very intelligible.

to

to them before they have taken ſome Reſt and Refreſhment.

FURTHER, ſome Things may be conſidered as to the Manner of Diet that is to be taken. And, firſt, Whether in acute Fevers it ought to be various or only ſimple. Variety indeed as it provokes the Appetite, ſo it renders the Digeſtion worſe. Beſides, it cauſes the Patient to take more than is fitting, and conſequently to concoct the leſs. Wherefore there can be no Room for it, but where there is a great Loathing, and no great Strength; for by taſting a little of every Thing this latter is ſupported. But if the Patient has no great Averſion to Food, and bears it tolerably well, he muſt by no means be tempted by a Diverſity of Diet. For a ſimpler Kind is taken with more Moderation, and affords a better Juice when concocted. This one Thing muſt be farther added concerning the Number of Times at which Food is to be taken. And generally, where there is a ſufficient Degree of Strength, we may give, to our People eſpecially, Food once a Day even from the very firſt; nay twice, if there be any Apprehenſion of Weakneſs enſuing. But if Things are come to ſuch a Paſs, that the Veſſels are entirely flaccid, and the Patient's Strength grown very infirm, we muſt give a little often the ſame Day, taking thoſe Opportunities when the Fever is moſt abated, remembring always to give leſs at that very Time, when, if the Body would bear it, we ſhould give none at all.

CHAP. VII.

Several Kinds and Forms of Aliment, which may be given to Perſons in acute FEVERS.

HAVING already fully treated of a general Diet in continual Fevers, it may not be amiſs to propoſe, by Way of Example, Forms of ſeveral Kinds of Food, which are uſually given with Succeſs to Perſons in Fevers, for the Sake of the Studious in Phyſick. In which Number, Barley, Ptiſan, and its Cream, obtain the firſt Rank, upon the Account of their excellent Properties in acute Diſeaſes, which *Hippocrates* from long Experience has handed down to us. The Ptiſan, ſays he, ſeems juſtly to be preferred to all other eatable Grain in theſe acute Diſeaſes, and I commend them who ſo prefer it. For its Viſcouſneſs being light, pleaſant, ſmooth, and moderately moiſtening, does not in the leaſt bring on any Drought; and if there is Occaſion for any Thing to be waſhed off, it does it perfectly well; it does not aſtringe, it creates no uneaſineſs, neither does it ſwell in the Stomach, it having done that, as much as poſſible, in the boiling. And whatever good Properties the Ptiſan is poſſeſſed off towards the Healing acute Diſeaſes, you will not find them, ſays *Galen*, in any other Thing

Thing beſide. For, firſt, it moiſtens, cools, and moderately abſterges, which Properties conduce greatly to the Cure of theſe Fevers. Its Viſcidity is light and ſmooth, without that Aſperity, which is in thoſe Things which are acrid, acid, and aſtringent. But it is of much Importance to give the Patient a pleaſant and grateful Ptiſan, becauſe it is both more eaſily concocted and diſtributed thro' the Body. And if *Hippocrates* himſelf preferred Meats and Drinks leſs eligible, becauſe pleaſanter, to thoſe which were better, but leſs grateful, why ſhould we not greatly recommend the Ptiſan, as having, beſides its Wholeſomneſs, a certain Pleaſantneſs peculiar to it? But though it ſhould appear viſcid, it is however ſlippery, and does not cauſe the leaſt Adheſion or Obſtruction in its Paſſage, which Property belongs entirely to the Ptiſan, in compariſon of all other viſcid Bodies. And it likewiſe, by its abſterſive Faculty, makes itſelf a free Paſſage every Way, and frees the firſt Paſſages from a Load of Excrements. Which Property is greatly ſerviceable to our People, as being generally troubled either with Crudities or Obſtructions in the Bowels. And upon this Account, if any Thing is to be waſhed out of the Stomach, the Ptiſan does it excellently well, as having not the leaſt Aſtringency, which is very injurious to Perſons in Fevers, unleſs there be any Danger from a ſymptomatick Evacuation. Add to this, that it has a Fa-

culty of moiſtening, and that but moderately, whereby it removes Thirſt, which Humidity, were it very conſiderable, would injure the Stomach, but from this Vice the Ptiſan is certainly free. Beſides, it can neither create any Turmoil or Intumeſcency, while it is concocting in the Stomach, for it has ſwelled as much as poſſible, by being long boiled over the Fire.

THE Ptiſan, is by many, prepared after this Manner; They take as much pick'd Barley, with the outward Huſk off, as they think ſufficient. This is boiled in Water, till it repreſent a thin Panado. After this, they beat it in a Mortar, and ſtrain it thro' a Sieve, then by adding Sugar to it, they make up the Barley Ptiſan. *Galen* ſays, that the Barley, when boiled in the Water, ought to ſwell as much as poſſible, and that afterwards it ſhould be rendered ſizey with much Leiſure, and a ſlow Fire.

AND the ſtrained Ptiſan, which is likewiſe called the Cream of Ptiſan, is made by boiling the Barley till the Water acquire a yellow Colour, then removing it from the Fire, and after it has ſtood ſome Time, ſtraining it, and adding ſome Sugar to it; this is the Ptiſan Drink, which may be given the Sick as Occaſion requires.

THE Ptiſan, with the Barley in it, nouriſhes much more than when ſtrained, wherefore this comes nearer to a Medicine, the other to Nutriment. This may be made

more

more cooling, by adding the Seeds of Melons, Cucumbers, Gourds and Citruls.

BUT it often happens, that by Reaſon of a Decay in the Strength, we muſt have Recourſe to more nouriſhing Food than theſe are, eſpecially among the northern People, who are accuſtomed to a more groſs and plentiful Diet. Wherefore Fleſh-Meats muſt ſometimes be allowed, but then it muſt be of Birds, and not Quadrupeds, unleſs there ſhould be a Neceſſity of going ſo far, as that of Kids or Calves. Among the Birds, which are proper in acute Fevers, are thoſe of the firmeſt Fleſh, as Capons, next Hens, then Pheaſants, and laſtly, Partridges. Next to theſe, their ſeveral young Ones ſucceed in the ſame Order. And ſo young Partridges ſucceed Mountain and Field Birds, which live not among the Waters but Trees, and have the ſhorteſt Necks and Beaks. Theſe Kinds of Food being boiled, are eaten with the Juice of Pomegranates, Oranges, Citrons, Lemons, and the like. We may oftner, and indeed more properly make a nutritious Diet from theſe boiled, pounded, and ſtrained with their Broth, after this Manner. Boil a Chicken, or a Capon in Water till the Fleſh fall from the Bones; then pound it, and add to it gradually ſome of the Broth, cleared of all the Fat, and rub the Fleſh thro' a Sieve with your Hands, or Spoon; then by adding to what is ſtrained, a little Sugar and Roſe-water, is made a Broth, which may be

be of what Thickneſs you pleaſe, by adding more or leſs of the Liquor. Farther, we may oftentimes very conveniently make this Kind of Broth alterative and medicinal, by adding ſome certain Ingredients. This is done by either boiling with it at firſt the greater cold Seeds, to which may be added, Lettice, Succory, Endive, Bugloſs, Barley, and the like: Or, by adding after it is boiled and ſtrained, ſome cooling Juices, as Lemon, Orange, and Citron, as alſo the Waters of Roſes and Carduus. And this Kind of Nutriment I have always found greatly efficacious in continual Fevers, both to ſupport the Patient's Strength, and alſo to abate his feveriſh Heats.

WHEN there is ſo great a Loſs of Appetite, that the Patient cares not for any of theſe, Jellies may be made of the abovementioned Broths with the Addition of Saunders, Coral, a little ſmall Wine, Roſe-water, Sugar, and a little Cinnamon. Theſe Juices, which are very grateful to the Palate, melt when taken, and thus eaſily and agreeably paſs down into the Stomach.

AMONG the more nouriſhing Food in acute Fevers, is Bread dipped two or three Times in Water, then mixed with Chicken or Capon Broth. Suppings are often made among us with Bread broken into ſmall Beer, then gently boiled, with the Addition of ſome Sugar, and a little Butter.

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ANOTHER nutritious Drink is made of equal Parts of Spring Water, and the Juice of unripe Grapes, with which is mixed the Yolk of an Egg; then being boiled together, and a little Sugar added, it is given to the ſick Perſon.

ALMOND and Barley Drinks, as they are called, often take Place in theſe Fevers, and eſpecially towards Night, for the Sake of provoking Sleep, which not coming on kindly, the Seeds of Lettice, Melons, Cucumbers, Gourds, are added, and if there be a Neceſſity, the Seeds of white Poppies. Beſides, Lettice boiled and eaten with Vinegar and Butter, may ſerve for a Kind of Supper.

ALL March-panes made of the contuſed Fleſh of Fowls and Almonds are to be avoided. For they yield too groſs an Aliment, and are not eaſily concocted.

CHAP. VIII.

Concerning Potulents in acute FEVERS.

THE Drinks as well as Meats in continual Fevers muſt be equally regarded; for theſe, the Sick are generally averſe to, and take with Reluctance; the former they greatly covet; for which Reaſon the Phyſician ought to be more liberal in indulging theſe,

theſe, than thoſe; and this ought ſo much the rather to be done; ſince taking any Food always adds to the Heat and Matter of the Diſtemper: Therefore, every Diſeaſe, conſtantly of itſelf, refuſes all Kind of Meat. But by cooling Drinks, the febrile Heat and Dryneſs is abated, and the Impetus of the effervescent Matter reſtrained. Therefore, beſides theſe Advantages, as Perſons in Health bear Hunger much better than Thirſt, ſo much more do thoſe who are Sick, and in violent acute Fevers, whoſe Appetite decays, and Drought encreaſes with the Diſeaſe: Wherefore, we may indulge them much more in Drink than in Meat. Beſides, Potulents are eaſier concocted than Eatables, afford a ſpeedier Refreſhment, and leſs burden decayed Nature. But ſome Meaſure ought to be obſerved herein, leſt by too much Liquor, which is improper in Fevers, and that too cool, the Diſeaſe be run into a greater Length, and there be made a leſs Alteration and Separation of the Matter, which is in this Caſe, improperly called a Concoction. On the firſt Day of an acute Fever, no Liquid ought to be given, unleſs the Patient ſhould be at once render'd ſo weak, that it may be likewiſe neceſſary to give him ſome Food. On the latter Days, when the Heat, Thirſt, and Dryneſs encreaſe, and the Strengh grows more infirm, we may encreaſe the Quantity of Liquids. In which Caſe it is plain that many, even ſkilful Phyſicians are miſtaken,

miſtaken, who deny their Patients any Liquor, tho parch'd up with the feveriſh Heat, and tho' they covet it never ſo earneſtly, and beg it in the Name of every Thing that is good. Whence it is, that the native Humour being attenuated, is plentifully carried off by Stool and Urine, the Solids are dryed up, and the native Heat being at the ſame Time extinguiſhed, the Patient dies. For my Part, I generally give cold Water to Perſons labouring under ſuch Circumſtances as theſe, eſpecially, if the Concoction is much advanced; by which Means, I both temperate the Heat and Drought, refreſh Nature, and throw off what morbid Matter is prepared for Excretion, by Sweat, Stool, and Vomit. Neither muſt we obſerve in this Caſe, what we ought to do in a Fit of an Intermitting Fever; in which, during its Continuance, all Liquids muſt be as much as poſſible excluded, the Patients, however droughty, muſt abſtain from them, and be informed that when the Fever goes off, the Thirſt will go off likewiſe, and that by Drinking, the Fit will run out to a greater Length; ſo that he who does not Drink, will ſooneſt ceaſe to be thirſty. For much Extenuation is neceſſary that the putrified and impacted Matter, which ought to go off, may be thrown out, which Extenuation is retarded by a large Quantity of Liquor. But in continual Fevers, the Matter continually remaining in the Veſſels, burns the Body up by its violent and perpetual Heat, which, unleſs it

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be refreſhed at proper Seaſons, with cooling Drinks, may be liable to Danger. In intermitting Fevers, the Cauſe, that is, the peccant Matter ought rather to be regarded; on the contrary, in ſuch as are continual, the Diſeaſe rather, namely, the febrile Heat; in both, neither is to be neglected.

FARTHER, as to the proper Time of giving any Drink, it may be obſerved, that the ſame Seaſons are proper in this as in Food, if that may be given ſometimes without this. Liquids are extremely proper juſt before Sleep, for Thirſtineſs interrupts the Reſt.

THESE are the moſt common Drinks in acute Fevers, Barley-Gruel, Water boiled with Sugar, and then cooled. A Julap of Violets, Small Beer, and Spring Water. But this laſt muſt not be given but in a great Quantity at once, and after the Concoction is finiſhed, as ſhall be afterwards ſhewn in its Place. There is room for the others in any Time of the Diſeaſe. Whatever Potulents have Honey in them are injurious, as being heating, and readily turning into Bile. Wine, becauſe it is hot, muſt always be avoided, unleſs there be a great Decay of the Strength, and the Patient has been accuſtomed to, and is very deſirous of it, and that in a ſmall Quantity, diluted, and not of any great Body. This may always be born, but is ſometimes abſolutely neceſſary in the Declenſion. Hitherto we have treated in general

neral of ſuch Meats and Drinks as are uſeful in theſe Fevers; we ſhall hereafter ſhew what Manner of Diet is uſeful in each State of the Diſtemper.

CHAP. IX.

What Manner of Diet is convenient in the Beginning of an acute FEVER.

IT is a Decay of the Strength alone which requires any Aliment; the Diſeaſe, *Copia* of Humours, Crudity, and Symptoms reject it. This has been ſufficiently ſhewn above. Therefore, Food ſeems improper in the Beginning of continual Fevers; partly, becauſe there is generally ſome Repletion of the Body, which ought to be diminiſhed and decreaſed; and partly, becauſe the febrile Matter is crude, upon which it is better for Nature to act, than upon any Food freſh thrown in. Beſides that, Nature is at this very Time leſs afflicted, becauſe it is but very little removed from that Degree of Strength, which lately ſupported the Body in Health: Wherefore it does not ſtand in much need of Food. This, I believe, was *Celſus*'s Opinion, when he tells us, that the Beginnings of Diſeaſes require Hunger and Thirſt. Therefore,

Therefore, if it is probable that the Diſeaſe will be ſolved in the firſt Week, and the Strength ſubſiſts, the Patient muſt uſe ſtrict Abſtinence on the two firſt Days, and take Barley-Water and Chicken-Broth. But if the Fever ſhould continue to the eleventh Day, he muſt then likewiſe abſtain from every Kind of Food, and after that proceed toChicken Broth, and Barley-Drink the thinneſt poſſible. Or if the Fever ſhould terminate on the fourteenth Day, he muſt paſs gradually to Chicken-Broth and Ptiſan of a moderate Thickneſs; and always, if the Patient ſhould continue feveriſh beyond theſe Days, muſt he proportion his Food to the Duration of the Diſtemper. Upon this Head *Hippocrates* thus expreſſes himſelf. Thoſe Perſons in whom the Diſtemper will ſoon attain its State, muſt at firſt be very ſparingly nouriſhed; and thoſe in whom it happens later, muſt abſtain from Food juſt at that very Time, and for ſome little while before; before that indeed we may nouriſh ſomething plentifully, that they may be enabled to bear up under it. Neither does *Hippocrates*, who orders plentiful Nouriſhment in the Beginning, differ (as ſome may poſſibly imagine) from us who preſcribe the thinneſt poſſible in the Beginning of a Fever. For this Author taking the Term *Beginning* in a large Senſe, includes under it the Increment likewiſe; there being no Mention in that *Aphoriſm* of an increaſing Illneſs, but the Beginning is

contradiſtinguiſhed to the State. And this he has often done in other Places, as in the ſecond Book of his *Aphoriſms:* In the Beginning, ſays he, of Diſtempers, if any Thing is to be moved, move it, but in the State it is much better to deſiſt. And afterwards, about the Beginning and End of Diſeaſes, all Things are more quiet, in the State, more violent. *Galen* likewiſe to *Glauco:* In continual Fevers, ſays he, which come to the Height by the ſeventh Day, if the Strength be firm, and the Age is not repugnant, an exquiſitely thin Diet muſt be inſtituted. But in thoſe Fevers wherein the State exceeds the *ſeventh* Day, or the Perſon is infirm, in the Beginning, ſays he, we muſt nouriſh liberally, more ſparingly near the State, and the leaſt that is poſſible in it. And *Avicenna* likewiſe, if he would not willingly expoſe himſelf to Cenſure, ought to have taken the Beginning of a Fever in this Senſe, when he ſays thus: The propereſt Time for a more liberal Diet, is when the Strength is not much employed upon the Matter; that is the Beginning of the Diſtemper. And the moſt convenient Time for the thinneſt Diet, is the State; for in this Seaſon, is Nature almoſt wholly engaged in ſubduing the morbid Matter. Therefore it ought to be a perpetual Rule, to nouriſh liberally in the Increaſe, and always more ſparingly in the Beginning. Beſides Abſtinence ſeems always proper in the Beginning, with regard to the Plenitude, and the Firmneſs of

the Strength, unleſs too ſudden a Change of the Diet in the Increaſe ſhould occaſion any Decay therein; to which Increaſe a plentiful Diet conduces, that ſo the Strength being ſomewhat confirmed may be able to ſuſtain the Violence of the Diſeaſe, which demands Abſtinence. And now leſt the Patient by enduring Hunger in the firſt Stage of the Diſeaſe, ſhould in the ſecond incur any Danger from a liberal Diet too ſuddenly taken, and leſt by endeavouring to avoid this Injury, and by beginning to uſe ſlender Diet in the Increaſe of the Diſtemper, he ſhould be obliged, by a Decay of the Strength, to feed unſeaſonably about the State.

WHEREFORE it will be better to begin immediately with a ſpare Diet at the Approach of the Diſtemper, and to proceed gradually to a fuller Diet at the Increaſe; and from hence to leſſen it again the nearer we approach to the ſtationary Period; and to abſtain from it entirely at this Time, as alſo a little before it. And it muſt be obſerved that the Patient is not always to be fed ſparingly immediately from the firſt Day, but that this Affair muſt be managed and varied according to the Nature of the Fever and Diſpoſition of the Body. In that Fever which moſt enfeebles the Strength, we muſt ſooneſt have recourſe to Aliment, as likewiſe in that Climate which moſt relaxes the Body. Sooner likewiſe to Children than Youths, in Summer than in Winter; in ſhort, ſooner to a weak Body

Body than one that is ſtrong and firm. Let this ſuffice concerning the Diet which obtains firſt in acute Fevers in general, and then that which takes Place in their Approach or Beginning: The next Thing now to be diſcourſed of, is the Concoction of the febrile Matter.

CHAP. X.

How the Matter in continual FEVERS *muſt be concocted.*

THE Term Concoction is taken by Phyſicians in a double Senſe. The firſt is of thoſe Things, which by the Power of the ſolid Parts and the native Heat, are altered and converted into the Nouriſhment of the Body. This Concoction is confined wholly to the Blood, and whatever elſe is proper and capable of being turned into Blood. The ſecond, which is an improper and more univerſal Kind of Concoction, is employed on thoſe Humours that are morbid and preternaturally affected; when they are ſo altered and ſubdued by the Force of the native Heat, (ſince they are malignant, and can by no Means be rendred ſalutary) as to be afterwards ſeparated from the more benign, and made fit for Evacuation. Indeed this Concoction is nothing elſe than a preparatory

Alteration of the febrile Matter for a convenient Diſcharge; that is, as *Galen* ſays, when Nature is become ſtronger than the Cauſes of Diſeaſes, and has ſubdued them by her own Strength. Therefore it likewiſe differs from the Concoction which may in ſome Meaſure be referred to the firſt Kind, and which is employed on a Matter that is not entirely uſeleſs, but vitiated and ſemi-corrupted; which after having been duly corrected, remains in the Body, and is as to the greateſt Part of it ſerviceable to it. Tho' this differs from the firſt Kind of Concoction, in that it is not employed on a Humour thoroughly benign, familiar and grateful to Nature; and likewiſe that in this Caſe, there is made hardly any, or at leaſt a very moderate Change of Subſtance. For there is ſometimes a certain beginning Corruption, and no very remarkable Change of Humours which admit of Correction, and recover their former Benignity. Which *Galen* illuſtrates from the Example of Wine: Which if grown only ſubacid, may be recovered, but cannot, if entirely turned into Vinegar. And in this Concoction, *Galen* orders that Temperament of the Humours to be brought on, which he calls Ἐπίκρασις, i. e. a Contemperation, by uſing a plentiful Diet, that ſo the freſh Matter may be mixed with the corrupt. On the contrary, that Humour which is wholly corrupted, is averſe to Food, (for the more you feed impure Bodies, the more hurt you

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do them) and ought to be prepared for a proper Diſcharge: And this is that Concoction we mentioned in the ſecond Place.

AND it is univerſally agreed, that this preparatory Alteration in a thick and tenacious Humour muſt be made by inciding and abſterging. But there is a greater Uncertainty and Diſſenſion among the Phyſicians with regard to the Bile. Some think it ought to be incided by ſuch Attenuants as are at the ſame Time acrid, and therefore preſcribe a compound Syrup of *Sorrel*, very probably following *Galen* herein: Who in the firſt Book of *Aphoriſms*, preſcribes *Origanum*, *Tragoriganum*, and *Hyſſop* boiled in *Hydromel*, before he purges off the Matter of acute Diſeaſes. There are ſome who follow the contrary Method, and tell us that the Bile ought to be incraſſated, in order to reſtrain it, and prevent its being diffuſed. Others take a different Courſe, and contend that the Bile as being thin of itſelf, which is the Caſe, is ready to be purged off without any Preparation. Such a Variety of Diſputes is there among the Learned upon this momentous Point, to the certain Hazard of the Patients.

I SHALL now propoſe my Sentiments upon this Head, and afterwards refute the Opinions of others. Since the Concoction of every morbid Humour, as I have before ſhewn, is nothing but a certain Preparation for a convenient and ſafe Diſcharge; we muſt therefore, by taking the Term in a laxer and

more univerſal Signification, ſee what it is, that in every Matter either retards this Evacuation, or renders it hazardous. And to endeavour to remove that, is to aſſiſt and promote the Concoction. In a melancholy Humour, a Craſſitude; in a Pituitoſe, a Lentor; in a Bilious, neither of theſe, but a certain Ardor, ſince by this the Fever is render'd continual, prevents us from purging ſafely in this Caſe, and conveniently in thoſe. Therefore we muſt attenuate a thick Humour, waſh off a viſcid one, and incide both, leſt, being attacked by purging Medicines, they ſhould be impacted and locked up; and we muſt attemper the Heat and Fury of the bilious Humour by Refrigerants, leſt, by attempting to purge it off without this Caution, it ſhould occaſion ſome deſtructive Injury to the internal *Viſcera*.

THE Humours being prepared in this Manner, Nature more eaſily ſubdues them, by altering, ſeparating, and diſpoſing them to a ſalutary Diſcharge. When therefore, in continued *Tertians*, and alſo in ardent Fevers, the Bile grows putrid in thoſe Veſſels which are largeſt and nearer the Heart, and becomes aduſt, no one ever ſafely moved it in this Condition, without running imminent Danger of bringing on an Inflammation in the chief *Viſcus*, or a Dyſentery, or Madneſs. For the immature Humour is diſturbed, and the whole is by no Means carried off, as being not yet ſeparated and fit-

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ted for Evacuation: In as much as it is yet unſubdued, and rebellious to Nature, on the Account of its fervid Heat. *Hippocrates*, being ſenſible of theſe Inconveniences, and the Heat of purging Medicines, ſays, that we muſt ſeldom purge in acute Fevers (the Matter in them being generally ſupplied from the Bile) and eſpecially in the Beginning. Therefore, do we alſo with good Reaſon before we draw off the bilious Humour, ſo attemper it with proper Coolers, that what at firſt diſturbed the Body by its Heat, being rendred milder, and as it were, ſubdued by Refrigerants, yields to Nature, ſo that it may be ſafely purged off, without any Increaſe of the Fever, or Apprehenſion of an Inflammation. But leſt we ſhould at any Time loſe the Benefit of Attenuation, which is certainly very uſeful, as well to the eaſier Purgation, as to the opening thoſe Paſſages by which the Humour is to be carried off; we prudently exhibit ſuch Remedies as are both cooling, attenuating, and gently abſterſive without any Aſtringency. Which Method, I find likewiſe laid down by *Avicenna*. When you cool, ſays he, in theſe Fevers, you muſt not do it by ſuch Things as are aſtringent and drying, whence the Reſolution of the Matter may be impeded. Wherefore, we may advantageouſly uſe the Roots of Borage, Bugloſs, Succory, Endive; likewiſe Barley, and the cold Seeds, both great and ſmall; all which, according to the Variety of their

Parts and different Properties, cool, abſterge, and moderately attenuate. Theſe are boiled in Water, and to the ſtrained Decoction may be afterwards added, the Syrup of either Endive, Succory, Juice of Citrons or Limons, but eſpecially the Syrup of Sorrel: From all which are made, thoſe Decoctions, which are by the *Greeks* called *Apozems*, and of which the Patients may drink *twice* a Day. In the Room of the Decoctions, the diſtilled Waters of thoſe Simples may be mixed with the Syrups, and made into what are called Julaps. But it muſt be remembred, that there is a greater Virtue, eſpecially of abſterging, in the Decoctions; and that the diſtilled Waters are capable only of cooling, with hardly any abſterſive Property at all. From all the abovementioned Ingredients, may be made limpid Drinks, which readily enter into the Veins, and by their Coolneſs, there attemper the effervescent Bile, and by their attenuating and deterſive Quality, prevent its contracting too great a Thickneſs (which would retard its Separation, and Diſcharge) either from the Uſe of theſe cooling Medicines, or from its own Aduſtneſs.

WHEREFORE, I differ much from *Avicenna*, who thinks crude Spring Water ſufficient to concoct the Bile; but then he does not ſee, that tho' Water be capable of cooling, yet, that it can by no Means either attenuate the Humour, or deterge and enlarge the Paſſages, by which that is carried off.

off. Beſides, it continues, as *Hippocrates* affirms, a long Time on the Stomach, and neither promotes Urine, or Tranſpiration; add to this, that in hot Conſtitutions it turns to Bile, and creates Drought. But *Avicenna* contradicts himſelf, who, in another Place well obſerves, that there is ſome Danger in cold Water, leſt it ſhould obſtruct the Paſſages. Neither does *Galen* diſſent from us, when he ſays, that the two principal Remedies of a continued Fever, are Bleeding and drinking cold Water. For in that Place, this Author preſcribes cold Water, juſt before the Criſis of the Diſtemper, when the febrile Matter is already concocted; and then he would have it drunk but at one Time, and that in great Quantities, whereby the febrile Heat being in a ſhort Time thrown forth, either a very profuſe Sweat follows, or a Vomiting, or a bilioſe Looſeneſs; upon which the Diſeaſe is immediately ſolved.

BUT *Avicenna* preſcribes cold Water thro' the whole Courſe of the Diſtemper, not to promote the Criſis, but to concoct the febrile Matter, which Method has been demonſtrated greatly erroneous.

WE muſt now anſwer thoſe who take a contrary Method, and endeavour to concoct the Bile with Hyſſop, Origanum, and the like. And theſe are miſtaken in this, that they burn up with hot Remedies a Humour which is hot, both from its own Nature, as well as from Putrefaction; and deſtroy the

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End they aim at in attenuating the Bile, by heating it too much. Hence therefore, the Fever is encreaſed; hence likewiſe proceed Watchings, Pains, Thirſt, Inquietude, and other grievous Symptoms, by which the Patient's Strength is conſumed, and Way made for the greateſt Dangers. Neither does it ſeem doubtful, but that many thus cured, have been endangered, either by growing tabid, or outrageouſly mad. And when *Galen* preſcribes Hydromel, in which Hyſſop has been boiled, before he purges off Choler, he does it not ſo much on Account of the Humour, as the obſtructed Paſſages, by which it muſt be carried off.

NEARER the Truth indeed, tho' not perfectly right, is their Opinion, who incraſſate the Bile, that it may be more commodiouſly diſcharged.

THESE Perſons were certainly deceived by the Expectoration in a Cough. For in this Caſe, if the Humour be too thin, it cannot be thrown up by the Breath, inaſmuch as it diffuſes itſelf abroad, wherefore, as it makes the Cough very violent, ſo likewiſe does it render it abſolutely dry. And the genuine Method of Cure, is ſo to inſpiſſate the Humour, by cooling viſcid Linctuſes, that it may be intercepted and carried off by the Air ruſhing out of the Lungs. But this Example, tho' it anſwers to the Expectoration, yet, by no Means can it be accommodated to the Purging off the Humours in the Veſ-

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ſels. For Nature does not evacuate theſe by the Intervention of the Air, but by an occult attractive Power in the Medicine; in which Caſe, it ſeems reaſonable that every Thing follows the eaſier, the thinner it is, and the more it be diſpoſed to do it. And that the thinner Humours are more commodiouſly and readily attracted by ſuch as are thick, is not only plain from daily Experience, but may be alſo gathered from the Medicines themſelves: Which, when Bile is to be purged off, ought to be milder; rougher, when Phlegm, or black Choler. From all which we may conclude, that the Concoction of Bile is ill attempted by the Uſe of ſuch Things as inſpiſſate.

THE only Perſons now remaining, are thoſe who contend, that there is no Occaſion for any Concoction to purge off the Bile, as being of its own Nature, and by the Ardor of a freſh Putridneſs, render'd fluxile. Theſe, indeed, ſeem to be in a double Error; firſt, in that they ſuffer the moſt fervid Humour to rage without attempering it in the leaſt, by the Uſe of Refrigerants; ſecondly, in diſregarding that Attenuation of the Humour, which I have always found uſeful towards a convenient Diſcharge. Let this ſuffice, as to thoſe Remedies which are proper in the Beginning of a Fever. It is Time now to proceed to the Increaſe, and lay down the ſeveral Things that ought to be done in that.

OF THE

CURE

OF

Continual FEVERS.

SECT. II.

Which contains their Increaſe.

CHAP. I.

Of the Purgation of the Matter.

THE Matter of an acute Fever being concocted, unleſs it be abundantly diſcharged by Nature, ought to be purged off. But in what Moderation, and at what Seaſons this ought to be, is not thoroughly agreed on by the Profeſſors of the Art. *Hippocrates* tells us, that

that we ſhould very rarely give purging Potions in acute Diſeaſes. So that they are miſtaken, who, in theſe acute Fevers, hardly paſs a Day without fatiguing their Patients, with ſome Medicine or other, either taken at the Mouth, or thrown up by Way of Clyſter; which Cuſtom as it is exceeding common with thoſe who are entirely ignorant of the Laws and Motions of Nature, ſo is it likewiſe extremely dangerous. For it exhauſts the Strength, weakens the Body afflicted with continued Heats, rouſes the morbid Matter, which is neither concocted or ſeparated, and hinders its Maturation (which undoubtedly requires Reſt) and in ſhort, ſubverts the whole Purpoſe of Nature, in expelling the Diſtemper. And from hence enſue Crudities, Pains, Thirſt, Inquietude, Watchings, Deliria, Diſtenſions of the Nerves, Hiccoughs, and other dangerous Symptoms. In Fevers, ſays *Celſus*, liquid Medicines ought to be given, and the Belly to be moved, but very rarely. And this he thinks ought to be done ſo as not to weaken the Patient's Strength: Becauſe, Imbecillity is attended with the greateſt Danger. Wherefore, they are deſervedly to be cenſured, who, thus licentiouſly attack the Patient's Health with intemperate Evacuations. Thus, in a Fever which would end on the *ninth* Day, *to give a Purge, and that perhaps a pretty ſtrong one, on the ſecond Day; and before this is quite gone off, to take away a Pound of Blood, or more; on the third, to in-*

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ject a Clyſter; on the fourth, to give a violent Purge; on the fifth, or ſixth, while the Fever is ſtill encreaſing, to open another Vein; on the eighth, again to purge; what is this but downright murthering of a Man ſinking under the perpetual Fires of an acute Fever. For it commonly happens, that after all this Torture, the Force of Nature being ſpent, the Diſeaſe ſhould prevail, and a continued *Delirium*, *Sopor*, and Difficulty of Breathing enſuing, ſhould carry off the Patient before the *fourteenth* Day.

IN like Manner, do many as ſhamefully err in the Time of exhibiting their Purges. For ſome reject all Preparation of the Bile, and purge on the firſt Seaſons. Others again, who are too ſollicitous about the Concoction, and too fearful of Crudities, chuſe the very State of the Diſtemper, very few waiting the Decline.

THESE are indeed all in an Error. For the firſt act contrary to the Courſe of Nature, which never rightly throws off any Humours, unleſs turgid, before they have been concocted. Which Matter, I find, has been ſtudiouſly obſerved by *Hippocrates*, who tells us, that concocted, and not crude Humours, are to be drawn off by Medicine. And ſince a Crudity determines the Beginning of Diſeaſes, it is plain, that we can at this Time, never give any Medicine with Safety. Neither does this contradict that *Aphoriſm*, which runs thus: If any Thing is to be moved

moved in the Beginning of Diſtempers, move it. Inaſmuch as the Term *Beginning*, being here extenſively taken, includes in it alſo the Increaſe itſelf. And this is clear from his immediately oppoſing the State to the Beginning: In the State, ſays he, it is better to be at Reſt. But they act with more Judgment, who purge in the ſtationary Period of a continued Fever, juſt when the Concoction is finiſhed. However, theſe are deceived in this, that they do not ſufficiently regard the Symptoms, which are at this Time extremely violent, and which, according to *Hippocrates*, require Reſt, and cannot bear any Diſturbance from Medicine. On the other Hand, they trifle egregiouſly, who wait an univerſal Declenſion of the Fever before they purge. For they, by ſuſpending all neceſſary Aſſiſtance, permit a violent Diſtemper to prey upon the Life of the Patient, and preſcribe Phyſick at that very Time, which, if the Diſeaſe is really decreaſed, is according to *Galen*, entirely void of Danger, and when the Body is almoſt wholly freed from the morbid Matter.

But, to ſet this Affair in a clear Light, I ſhall here give my Opinion fully concerning the proper Times for Purging; which has not yet, as I think, been ſufficiently remarked by any one, and which has employed the Wits of many in bitter Altercations, to no Purpoſe at all. In all Fevers, Nature continually endeavours to ſubdue and concoct

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the corrupted Humour in a certain Time; and to this Purpoſe, employs the native Heat, which alters, ſubdues, ſeparates, and diſpoſes it to ſecrete. This Excretion does not happen, before that former Work is completed, which we comprehend under the Name of *Concoction*. And the Time, when that Excretion is made, is called the State of the Diſtemper. Now then, if the Phyſician is, as he ſays, the Servant of Nature, and ought (ſuppoſing that ſhe moves regularly) cloſely to follow her Steps, it ſeems plain, that he cannot ſafely purge, but in the Decline of Diſeaſes. And this indeed, is an eſtabliſhed Rule, unleſs any Thing ſhould happen, which might oblige us, for Security ſake, to change this univerſal Law of Purging, as it falls out in theſe continued Fevers (which we are now diſcourſing of,) in the State whereof the Violence of the Symptoms prevents all Purging. And concerning theſe acute Fevers, it is, that *Hippocrates* has laid down the following *Aphoriſm*. In the Beginning of Diſeaſes, if any Thing is to be moved, move it: For it is better to reſt, when they are at the Height. When intermitting Fevers are advanced to their State, and Nature is perplexed with no Symptoms, we may ſafely draw off the concocted Humour with Medicines, on that Day the Intermiſſion is. And in theſe Fevers, ſince the Period is certain, and the Intervals tolerably quiet, the Rule concerning the Time may be perpetual. But

in the ſtationary Period of ſuch as are continued, the Watchings, Deliria, Heats, Droughts, and Inquietudes forbid our irritating Nature with Medicines, which is now afflicted, and ready to ſink under thoſe Calamities. Wherefore, it is better to exhibit purging Medicines when the Increaſe is pretty well advanced, that ſo we may prevent and avoid thoſe Symptoms. For at this Time, neither the morbid Matter, which is for the moſt part maturated, nor the Symptoms, which are not yet extreme, diſſuade us from it. For the bilious Matter about the Liver and neighbouring Veſſels, however attenuated and concocted, may be brought off by moving the Belly; the reſt, which is contained in more remote Veſſels, and perhaps, not yet throughly concocted, being left to Nature to be thrown off at once at the enſuing Criſis. And *Celſus* judiciouſly remarks, that that exuberant Matter ought only to be leſſened, which is naturally concocted, when there is no freſh Acceſſion. This likewiſe, *Avicenna* ſeems to have underſtood, when he writes; Remember there is leſs Injury, when a Reſidue of that Matter, which it is neceſſary to evacuate, is retained, than when it is ſo exquiſitely diſcharged, that the Strength may be endangered. For Nature moſt commonly reſolves this Reſidue herſelf.

AND, in my Judgment, whatever Remedy is given in acute Fevers, ought to be extremely mild; ſuch as are the Myrobalans

and Rhubarb, and among the Compounds, the ſolutive Electuaries of Prunes, Roſes, *Pſyllium*, and the like, which being mixed with Whey, or the Decoction of Tamarinds, to which is added, either Caſſia, Manna, or Elect. Lenitiv. or elſe the Syr. Roſar. Solut. and made up in the Form of a Draught, may be exhibited. Rhubarb likewiſe, and Myrobalans are better to be macerated than taken in Powder. And there are two Reaſons, as I imagine, why we ought not to uſe rougher Medicines in an acute Fever; the firſt is, that theſe are either hot in themſelves, or undoubtedly, excite Heat by violently moving the Body, and waſte the Strength beyond Meaſure, the vital Spirits being conſumed: The ſecond, that in the Increaſe of the Diſeaſe (at which Time I have ſhewn that we ought undoubtedly to purge in theſe Fevers) thoſe Medicaments are improper, which totally extirpate the morbid Matter. For that Part which is but half crude, will not yield to the Medicine, without greatly moleſting Nature, and encreaſing the feveriſh Heat. Beſides, the intended Concoction of the Matter is interrupted by a violent Medicine, by confounding the Humours, which are already begun to be ſubdued, and ſeparated from the benign Blood. And this *Avicenna* ſeems to have underſtood, when he tells us, that Evacuations hinder Concoction, and blend the malign with the ſound Humours.

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IT is plain therefore, that none but the mildeſt Medicines can take Place in this Diſtemper, which do not thoroughly purge the whole Body, but only empty its lower Region, and that Part of the Second, (which contains the convex Part of the Liver, with the *Vena Cava* and *Aorta)* of its bilious Load; and that this ought not to be done before the Increaſe is completed, when the Symptoms are pretty moderate, and the offending Matter not entirely concocted.

AND theſe may be looked upon as certain Times for Purging, unleſs the Matter ſhould immediately begin to be turgid, that is, efferveſcent, and tranſlated from one Part to another. For then the Humour ought, according to *Hippocrates*, to be purged off as ſoon as poſſible: And this, leſt being either caſt upon a principal Part, it ſhould there excite a fatal Inflammation; or ſuddenly oppreſſing, in caſe it be envenomed, the native Heat, it ſhould kill the Patient. And it muſt likewiſe be obſerved, that Purging may ſometimes be repeated, and that at the Decline of the Fever, when Nature, by an imperfect Criſis, has thrown off the greater Part of the Matter, but cannot exclude the reſt, which is now judiciouſly drawn off by a Purge, leſt it ſhould afterwards excite the Diſtemper afreſh. For that Matter which remains in Diſtempers after the Criſis, as *Hippocrates* well obſerves, generally occaſions Relapſes. Wherefore, I cannot but admire

at the Unadviſedneſs of moſt Phyſicians; of whom, though many purge at the Beginning of the Diſeaſe, not a few in the ſtationary Period, and others again in the Decline, yet ſo very few ſhould pitch upon the more advanced Part of the Increaſe. As if they deſignedly ſlipt that very Opportunity, which is moſt ſuited to this Method of Cure in acute Fevers.

FURTHER, I have not yet treated of that Kind of Remedy, which is commonly termed Lenitive, and which purges off the inteſtinal Load, without any Violence or Diſturbance to the Body. For this is uſeful at any Time of the Diſtemper, when the Belly does not anſwer, and may be given ſometimes by the Mouth, at other Times by Way of Clyſter. The moſt ſimple of this Kind is propoſed by *Avicenna*, conſiſting of Barley-water and *Syr. Acetoſus.* Others preſcribe, either *Caſſia*, *Manna*, *Diacatholicon*, *Elect. Lenitiv.* or *Diaprunum ſimplex*, with a Decoction of Barley, Prunes, or Tamarinds. A Clyſter may be made of a Decoction of Mallows, Lettuce, Violets, Mercury, and Barley, with the Addition of Caſſia, and Oil of Violets. From theſe Kinds of lenient Medicines, no ſmall Advantage accrues to Perſons in acute Fevers. For that dry Filth, which offends by its Putridneſs, is evacuated, the febrile Heat is mitigated, and the adjacent corrupted Bile is waſhed off. But theſe ought to be entirely mild, ſo that they produce

duce but one Stool, or, if poſſible, two at the moſt. They become wholly uſeleſs, when they occaſion ſo many Stools, as to diſorder the Body, and retard Nature's Work in concocting the Matter. Which Error I obſerve to be committed daily by many, who think they do nothing to any Purpoſe, unleſs they frequently, or perhaps daily, thus purge Perſons in acute Fevers; in which Caſe the Danger is, that the Strength be not thereby much impaired, which, as in all other Caſes, ſo is it in theſe continued Fevers, greatly to be dreaded.

WE muſt now in the next Place, determine the Day and Hour, wherein theſe Medicines may be moſt advantageouſly exhibited. Which is a Matter well worth obſerving. For ſince, in theſe Diſorders, the Feveriſhneſs is continued, and does not come to an Intermiſſion, before the Diſeaſe be once ſolved by a Criſis: It may reaſonably be enquired, which is the moſt proper Time of the Day for this Purpoſe. Wherefore, we muſt regard the particular Kinds of theſe Fevers, as whether they be Quotidian, Tertian, or Quartan; or laſtly, whether they be of the continent, or continual Species; and we muſt likewiſe ſee that the Medicine be always given on that Day, and that Hour, when the Fever is moſt abated, and when the Body is as ſound as it generally is in that Kind of Illneſs. For, whatever Medicine is given in the Height of the Fever, diſorders

the Body, breaks the Strength, and is, as *Celſus* obſerves, ſometimes retained in the Belly, and being thrown upwards on the Head, much enhances the Danger. Therefore, if the Fever prove a Quotidian, which certainly remits in the ſhorteſt Space of Time, we judge it more proper to begin with Medicines when the Fever is going off, rather than when it is upon the Increaſe. But if it be a Tertian, which is milder one Day, and more ſevere the other, the Medicine ought to be exhibited after the latter. Fevers are always moſt violent on the critical Days; wherefore, we muſt at this Time, more eſpecially abſtain from Medicine. In a Quartan, the two intermediate Days are the moſt convenient to purge on. Farther, if it be a continent Fever, which proceeds perpetually in the ſame even Tenor, or if it continually increaſe with a greater *Impetus*, without any Remiſſion, or if it loſe its Force by a gradual Decreaſe, we muſt chuſe that Time of the Day, which is naturally the moſt mild; this is plainly the Morning, juſt about Day-break. But if this ſhould by any Accident, or Fault of the Diſeaſe, be render'd inconvenient, the Medicine may be ſafely given at Mid-night. The Noon and Evening, are in themſelves, by no Means proper. Wherefore, upon a general View of Things, it is plain, that the Rule concerning the Time, which muſt never be ſet aſide, cannot by any Means be fixed in ſuch a Variety of Circumſtances.

CHAP.

CHAP. II.

What must be done after Purging, and how the febrile Heat must be attempered.

THE Belly being now sufficiently emptied, and the Purging over, many order their Patients Chicken-broth, or warm Barley-gruel with a little Sugar, that the Intestines, which have been dried by the Transflux of the Bile, may be moistned, and that the more subtle Parts of the Medicine, if perchance any should adhere to the common Passages, may be washed off. Altho' this is more necessary in the Case of violent Medicines, yet must it not be wholly omitted here, for the Sake of Lubricating rather than of the Medicine given, which as we have already shewn, ought to be very mild in an acute Fever. On the following Days, while the Fever is in its State, the feverish Ardors ought first to be mitigated by proper Coolers, such as the Air, or external Applications, or Things taken inwardly, and Meat and Drink, either alimentary, or medicinal.

As to the Air, if it be either temperate or hot, it must be cooled, by chusing a very large Room on a Ground-floor, which is not only cold from the Situation, and a moderate Draught of Air thro' it, but must be

rendred colder by Art; namely, by wetting the Pavement with Water mixed with Vinegar, and ſtrewing it with Branches of the Vine, or Willow. It would be proper likewiſe, that the Patient ſhould handle theſe latter. A Croud of People ſhould alſo be prevented, for that likewiſe heats the Room. Some, in Imitation of *Galen*, pour cold Water from one Veſſel to another, which may likewiſe provoke Sleep.

FARTHER, Care muſt be taken, that this cooled Air muſt be taken inwardly, by Inſpiration, and not fall on the external Parts of the Body. For being taken inwardly, it tempers the Burning of the Heart; but falling outwardly upon the Habit of the Body, it ſhuts up the Pores, and prevents the febrile Matter being carried off by Perſpiration. For by condenſing the Skin, its Paſſage is ſo lockt up, that it cannot penetrate as far as the *Viſcera*. Therefore, in this Caſe, extreme cold Air is always to be avoided, as doing more Injury by the Conſtipation of the Skin, (unleſs the Patient be carefully covered up) than Good by cooling the Heart.

AFTER the Air has been thus corrected by Art, ſome Things (by the *Greeks* called Ἐπιθέματα) may be applied outwardly to the Heart, *Præcordia*, and Liver, or where the chiefeſt Part of the Heat is found to preſide. You may take the diſtilled Water of Roſes, and Bugloſs, and *Carduus Benedictus*; to theſe add ſome Vinegar of Roſes, Powder of Sanders, Coral,

Coral, Pearl, and the *Elect. frigid. Margaritarum*; likewiſe, a ſmall Quantity of *Spodium*, and Bole Armeniack; mix them, and make an Epithem, with which a Cloth being impregnated, and moderately expreſſed, may be applyed. This Medicament ought to be a little warm, leſt by its ſudden Coldneſs it ſhould ſtop up the Pores, and by repelling the feveriſh Heat into the Body, it ſhould increaſe the Burning of the inner Parts. After theſe Epithems, *Galen*'s cooling Cerate may be of uſe, which is ſet down in the tenth Book of his *Methodus Medendi*; and is made of one Part of white Wax waſhed, and three or four Parts of Oil of Roſes drawn from an immature Oil without any Salt: Theſe being both mixed, muſt be melted in a double Veſſel, and the Cerate being made, and afterwards cooled, as much Water muſt be gradually mixed with it in a Mortar, as it will take in, when it is ſoftened with it; a little Vinegar may likewiſe be mixed with it. The Water ought to be extreme cold, and the Cerate firſt cooled as much as poſſible; which may be done, by ſetting the Veſſel it is in, into a very cold Spring.

BUT it muſt be obſerved, that it is always ſafer to cool by Medicines taken inwardly, than by external Applications; eſpecially, when a plethorick Body has not been yet emptied by Bleeding or Purging. For in this Caſe, the Matter is eaſily thrown upon the *Viſcera*, by the Uſe of external Refrigerants, and

and that with no ſmall Danger, and the Perſpiration being checked, a great Putridneſs and violent Fever may be occaſioned. Wherefore, it is always ſafer to apply theſe topical Remedies after the Body has been evacuated, at the latter End of the Increaſe, when the Burning is moſt violent, and a good Part of the Matter is exhauſted. The beſt Time for theſe Applications is, when the Patient is burn'd up with extreme and dangerous Heats, and which cannot be extinguiſhed by Things taken inwardly, either becauſe the Stomach cannot bear them, or the Patient refuſes to take them. In a Body which is very thin, ſince the Bowels are ſoon offended by the Cold, they are uſeleſs. They are equally injurious, when a moderate Sweat begins to ariſe, eſpecially, if it be a critical one in the State, which is likely to terminate the Fever. For this is impeded by the external Uſe of Refrigerants.

THE beſt Means of cooling is, by ſuch a Diet as has been formerly deſcribed. Thoſe medicinal Potions, which are called Julaps, avail very much towards quenching the feveriſh Flame. Take the diſtilled Waters, of the ſeveral Kinds of *Intybus*, Buglos, Violets, and *Carduus Benedictus*; to theſe add *Oxyſaccharum*, or Syrup of Sorrel, or Violets, or *Intybus*, and make very clear refrigeratory Potions, which will be grateful to the Taſte and Sight of the Patients.

BUT it must be remembred, that some Moderation ought to be used in these Things, lest by cooling too much, we either offend the Stomach, or retard the Concoction, Secretion, and Solution of the Matter. There is greater Danger of cooling too much in Bodies naturally cold, weak Stomachs, old Age, Winter, and in cold Climates. I have seen several of our Countrymen so constantly plyed with these Julaps, through the Rashness of their Physicians, that some have been affected with a violent *Singultus*; others, after the Fever has been cured, killed with a Dropsy; all of them assuredly seized with a lingering and dangerous Feverishness.

CHAP. III.

By what Means the severer Symptoms of an acute FEVER *are to be relieved.*

SINCE the native Strength is particularly aggrieved by the Symptoms, and in this Imbecillity, consists the greatest Danger, we must endeavour, as much as possible, to break and restrain the Violence of those Symptoms. And they are generally these; Drought, Roughness of the Tongue, Cough,

Cough, *Singultus*, canine Appetite, Pain of the Head, Watchings, *Delirium*, Coma, Swoonings, and some excessive and unseasonable Evacuations.

THIRST is removed by the Use of those Coolers and Moistners as have been before described. The Chief is the Julap, and Sugar of Violets. The Juice of Lemons and Oranges, with the Addition of Sugar, are likewise good; also the medicated Juice of the *Ribes* and *Oxyacantha*, and the like: Stewed Prunes are likewise of Service. But it must always be observed, that the Patient does not tipple too much, or be parched up with too great a Drought. In which Matter I have observed many to offend; some of whom indulge their Patients in drinking as much as they list; others act the Executioner, and will not allow them the least Drop of Liquor, even when it is most necessary. The first Error protracts the Illness; the other increases the Ardor and Liquefaction of the Body, and brings the Life of the Patient into the utmost Danger.

FARTHER, if, when it is improper to Drink, the *Fauces* should be parched up, they may be washed with some Liquor or other. And *Celsus* tells us, that *Erasistratus* wisely observes, that oftentimes, when the inferior Parts of the Body do not require any Liquid, the *Fauces* may. A dry Tongue is corrected by Prunes, macerated in Water, and then retained in the Mouth. It is good

likewise,

likewiſe, to waſh the Mouth, either with ſimple Water, or elſe boiled with Barley. If the Tongue be loaded with a viſcid Matter, four Ounces of Barley-water may be mixed with one of *Oxymel*, and the Mouth gargled therewith; afterwards, the Tongue may be cleaned with a Sponge, firſt dipped in the ſame Liquor. But if it be very rough, it may be firſt cleanſed with warm Water and a Bruſh, and then lubricated with a Mucilage of *Pſyllium*.

SOMETIMES a dry Cough is incident to acute Fevers, from the Lungs being too much dried up. This may be corrected by Moiſtners and Refrigerants, as the *Julapium*, *Violaceum*, *Elect. Diatrag. frigid.* Barley-water ſweetned with Sugar, *Trochiſci Bechici* retained in the Mouth, and the like. It may alſo be of Uſe to anoint the Breaſt outwardly with the Oil of Violets, Hen's Fat mixed up with white Wax.

THE *Singultus* one while follows the too great Dryneſs of the Body, and particularly the Ventricle (of which it is an Affection) contracted from a very burning Fever; and this is certainly fatal, and out of the Reach of any Medicine. Another while, it is cauſed by an acrid Humour in the Ventricle; in which Caſe, a Preparation of *Aloes* is of Service. Sometimes again it follows an intemperate Uſe of cooling Julaps, with which we have ſeen many affected, from the Unadviſedneſs of their Phyſicians; and this Symptom,

Symptom, contrary to the Opinion of every Body, we have removed with a Glaſs of Wine.

FARTHER, the canine Appetite, as it is called, I have found to happen ſometimes in continual Fevers, eſpecially, ſuch as have proved inveterate; ſo that the Patients, at one ſingle Dinner, have devoured a Capon entire. This Affection is produced, when the Body has been too much reſolved by the Heat of a long Fever; whence it is, that for want of a Supply, the Parts greedily and continually attract the Aliment, and when the Stomach becomes ſenſible of that Attraction, an unbounded Appetite is excited. This reſolving Heat is found not only in the outer Members, but ſometimes alſo even in the Ventricle itſelf, whence it becomes ſo inordinately ravenous. The beſt Remedy is to condenſe the Body externally, with aſtringent Oils and Lotions, that it be not too much diſſipated; and to take fat, viſcous, and cooling Food, however, of a good Juice. I have found Calves-feet to be efficacious, boiled in Water with the Seeds of Porcelane or Lettuce. But, if the Head ſhould ach upon the fervid Effluvia, or Humours mounting thither, it muſt, after convenient Evacuations, be ſtrengthned and attempered with *Oxyrrhodinum*, or crude Oil, wherein the Juice of Polygonum has been boiled. A Cloth dipped in theſe ought to be applied to the Forehead, and that actually cold, particularly

ticularly in the Summer; in the Winter they may be juſt warmed, eſpecially, if the Fever be ſomewhat milder. In the mean Time it may be proper to avert the Impetus of the Humours, by ſuitable Clyſters, Bandages, and Frictions of the inferior Parts, as much as the Fever will allow. If the Pain in the Head, either ariſes, or is increaſed by any corrupted Humour in the Stomach, this muſt be expelled by immediate Vomiting. But if the Pain ſhould fall upon the Head from the great *Copia* of Juices, or any other Cauſe, this muſt be immediately enquired into, and removed.

BUT no Cure ought to be applied to a Head-ache ariſing from the Humours being moved to an Excretion, by the approaching Criſis; this ſhould rather be conſidered as a ſalutary Sign than a Symptom, and is an inſeparable Mark, either of the Blood's flowing critically from the Noſtrils, or an enſuing Vomiting.

WATCHING is very tedious to Perſons in a Fever, for, the Spirits being ſunk, it conſumes the Strength, and, at length, brings on Inquietude, Delirium, and Danger of Death. And this ariſes from a vehement Dryneſs of the Brain, contracted from the Vapours of the Bile. It is therefore to be corrected by thoſe Things, which moiſten and cool at the ſame Time. Among theſe, is the Barley Ptiſan unſtrained, with the Addition of the cold Seeds, both great and

and ſmall. Sometimes, when an obſtinate Watching threatens Madneſs, I preſcribe ſome Syrup of white Poppies to be taken at the Hour of Reſt. Some, to this Purpoſe, not injudiciouſly, anoint the Temples, Forehead, Noſtrils, and ſometimes the Feet, with *Ol. Nymphææ*, or *Ung. Populn.* Others bruiſe Poppy-Heads, and having mixed them with Bread, and Oil of Roſes, apply 'em to the Forehead. Others again, provoke Sleep, by bathing it with the Juices of Mint, and *Hyoſcyamus.* But, it muſt be obſerved, that theſe Kinds of ſoporiferous Drugs, are very cautiouſly to be uſed, eſpecially, if the Head be naturally weak, or inwardly loaded with any Humour, which diſtils from it at Times. Others, with more Safety, waſh the Arms and Legs, with certain refrigerating Decoctions, and contend, that by this Method, they can induce Sleep; but theſe ought to be but juſt warm, leſt, by their aſcititious Heat, they diſturb and inflame the Body. Cooling the Air of the Chamber is of great Service towards removing this Watchfulneſs; this is done by ſhutting the Sun out, and wetting the Floor with Oxycrate or Roſe-water, mixed with Vinegar: The Room and Bed may be likewiſe ſtrewed with the Branches of Willow or Vine, the Patient may alſo handle the ſame with Succeſs. The Bubbling of a riſing Spring, if there be one near at Hand, or the continual Pouring of Water into a Baſin, may incline the Patient to Sleep. It may

may not be amiſs to bind his Legs and Arms a little, and engage him with the Converſation of his Friends and a moderate Noiſe; but this muſt be done at the Time when he is uſed and covets to Sleep; afterwards, his Bandages muſt be ſuddenly looſed, and all Light removed, and the Patient left in the moſt profound Silence, and thus ſuffered to go to Sleep.

FARTHER, if a Delirium (which is generally preceded by an obſtinate Watching) ariſes in an acute Fever, it is bad, and more ſo, if it continues for any Time. We muſt draw the bilious Halitus, and thoſe Humours which either have ſeized or make towards the Head, downwards, by Frictions on the Feet, or applying Cupping-glaſſes firſt upon the *Nates*, and then upon the *Scapulæ*; but particularly by injecting a Clyſter made of a Pint of the Decoction of Lettuce, Violets, Mercurialis, *Althea*, Barley, and the greater cold Seeds; to which muſt be added one Ounce of Caſſia, five or ſix Drams of *Diaprunum ſolutiv.* three Ounces of *Ol. Violar.* and two Scruples of Salt. But that Kind of Delirium which happens near the Criſis, or in it, and ariſes from the Motion of that Matter which is going to be expelled, muſt not be ſollicited by any Method of Cure, as going off ſpontaneouſly after the Evacuation is finiſhed.

THE moſt grievous Symptom of all in an acute Fever, is to have the Delirium

ſucceeded by a Coma; in which Caſe hardly any Remedy will be found effectual. Some, at this Time, very imprudently run upon violent Purges, which entirely caſt down the infirm Strength, ſo that the Patient may truly be ſaid to have periſhed by the Medicine, whom the Diſtemper, in a ſhort Time, ought to have carried off of itſelf. Some apply live Chickens cut in two to the Head. This Remedy I ſhould not indeed reject, if I did not think it would rather attract more Matter to the Head, than drive it from it; in my Opinion, they would more properly be applied to the Soles of the Feet, ſince then by powerfully drawing the Matter from the ſuperior Parts, they would prove Revellents. In like Manner, may all thoſe Remedies be tried, which I have before propoſed for cauſing a Revulſion in the Pain of the Head.

I ſhall now proceed to ſpeak of the *Deliquium Animi*, which never happens without great Danger, eſpecially, if it follow any immoderate Evacuation. In this Caſe, Wine diluted with Spring-water may be given, unleſs the febrile Ardor be too great, or there be a violent Pain in the Head, or Delirium, or any Inflammation of the internal *Viſcera*. Then muſt he only ſmell to the Wine, and not drink of it. Cold Water may alſo be thrown upon the Face, and his Noſe and Ears twitched with the Hands; laſtly, the Mouth of the Ventricle may be rubbed,

rubbed, and a Vomiting excited, either by putting a Finger or Feather into the *Gula*. If there ſhould be too great an Evacuation from the inferior Part of the Body, the Hands ought to be bound; if from the Superior, the Feet. If either too great a Flux of Blood from the Noſtrils ſhould bring on a *Deliquium*, or a Looſeneſs, or profuſe Sweat, thoſe Remedies muſt be applied, which I ſhall afterwards propoſe, when I come to treat of intemperate Evacuations. Sometimes, by the Bile's attacking and corroding the Stomach, a Faintneſs may threaten, which Symptom is not altogether ſo bad; for when the Humour is ejected, the Patient immediately returns to himſelf. Wherefore, it is proper to mix ſome Oil and Water, and by drinking it off at once to excite a Vomiting. The Finger likewiſe dipped in this, and thruſt into the Gullet, provokes a Vomiting, when it does not immediately follow the taking it. After this, if the Stomach continue very weak, it muſt be ſtrengthned, by eating ſome Bread dipped in the Juice of Pomegranate, as likewiſe by applying a Cataplaſm externally of Palms Oil of Quinces; to which may be added Juice of Endive, Gourds, and ſour Grapes, if the Stomach burns with any remarkable Heat. Farther, if the Fever ſhould be ſo malignant as to occaſion frequent Swoonings, and a great Coldneſs of the extreme Parts, we ought to uſe powerful Frictions and Bandages, and

by no Means to ſuffer the Patient to ſleep much, or be filled with Diet. When a violent Dryneſs occaſioned by the feveriſh Heat, has brought on a Swooning, a ſmall Quantity of moiſt, cooling, and light Aliment, muſt immediately be given, and repeated often: Which though it is ſafelier given at the milder Seaſons, yet, may it likewiſe be given, if Neceſſity requires it, even in the midſt of the febrile Ardors. It will alſo be uſeful to ſprinkle the Patient with cold Water, as well as give him ſome of it to drink; he may likewiſe be refreſhed with a Fan, and be expoſed to the Air.

WE muſt now treat of thoſe Evacuations, which happen at improper Times, and beyond due Bounds, and which ought by all Means to be ſtopped, leſt they deſtroy the natural Strength. Firſt then, if the Blood is thrown forth of the Noſtrils, not critically, but from the violent Ebullition of the Juices, Cupping-glaſſes muſt be applied to the oppoſite Parts of the Body, by Way of Revulſion. The Legs muſt likewiſe be bound with ſeveral very ſtrong Bandages, and the Patient muſt be ſet upright. The Neck and other neighbouring Parts muſt alſo be ſurrounded with Cloths dipped in *Oxycrate* or cold Water alone. Yet this muſt not ſo freely be done when there is Danger of an Imbecillity of, or Diſtillation from the Head, or Quinſey. Cold Water may uſefully be drawn up the Noſtrils; as likewiſe Juice of Houſleek, or

Hyoſcyamus,

Hyoſcyamus, with which may be mixed Bole Armeniack, or any other very aſtringent Powder, ſuch as Balauſtins, Acacia, Pomegranate Bark, Hypociſtis, and the like. For the ſame Purpoſe ſome uſe the Juice of Aſſes Dung, or the Dung itſelf powdred, mixed with Dragon's Blood. Beſides, Medicines muſt be taken inwardly, which may cool the effervescent Blood, and by a moderate Inſpiſſation, prevent it from being ſo fluxile. Such are boiled Lettuce, Barley-drinks, in which Violets or Lettuce Seeds have been boiled. Syrup of Violets taken with the Juice of Lettuce or Purſlane, is profitable.

THE next Thing to ſpeak to is Vomiting, which, unleſs it be critical, ought oftentimes to be repreſſed, but more eſpecially, when thro' the Weakneſs of the Ventricle the Bile continually flows into it. It is neceſſary likewiſe to ſtrengthen this Part, after the Humour is thrown out, by the Uſe of Aſtringents both externally and internally applied, as alſo to draw the corrupted Bile downwards, by now and then throwing up a Clyſter. But if any Humour be generated in the Ventricle, which creates frequent Vomiting, it muſt be firſt expelled by drinking warm Water with Syrup of Sorrel, and then the Diſorder in the Ventricle corrected by proper Materials.

AT this Time alſo immoderate Looſeneſſes are very Noxious to Perſons in Fevers. For by frequent Stools, and large Evacua-

tions the Strength is waſted. Beſides, they are accompanied with Watchings and dreadful Gripings, occaſioned by the Bile's ulcerating the Coats of the Inteſtines. This Flux, if it be neither temperate or critical, may conveniently be ſtopped by Barley-water, in which a red-hot Iron has been extinguiſhed, and afterwards boiled with *Pyrola*, *Intybus*, Plantain, Myrtle, or the like. All fat and acid Things are uſeleſs, eſpecially, Vinegar itſelf. A very cold Air in the Chamber is likewiſe hurtful.

OFTENTIMES a profuſe Sweat, which is not critical, greatly enfeebles People in an acute Fever, and is therefore by all Means to be reſtrained. In the firſt Place we muſt condenſe and cool the external Parts of the Body, by cooling the Air of the Chamber, with Willow, Vine-branches, and Roſes ſtrewed on the Ground, which muſt likewiſe be wetted with Oxycrate. It is proper alſo to anoint the Body with Oil drawn from Myrtle, Willow, or Roſes. The Parts, which ought to be anointed, are theſe, the Forehead, Temples, the Arteries on the Wriſts, and the Spine of the Back.

BUT if the Sweating ſhould be ſo ungovernable as not to yield to theſe Remedies; *Avicenna* made no ſcruple of applying Snow to the extreme Parts. We throw cold Water upon the ſame Parts, or order them to be held for ſome time in it. But to wipe off the Sweat often is entirely uſeleſs, becauſe it is thereby rendred

rendred the more copious. No critical Sweat muſt be ſtopped, unleſs it flow ſo immoderately as to exhauſt the Patient's Strength, from whence Swoonings may enſue. That which comes at the Beginning of acute Fevers, although it is not to be commended, muſt yet by no means be reſtrained, it being occaſioned by the Quantity of the Matter, which if it be prevented from being carried off by the Conſtipation of the Skin, may create a greater Putridneſs.

CHAP. IV.

What Kind of Diet is to be obſerved during the Increaſe of a continual FEVER.

A MORE liberal Diet may be allowed in the Increaſe of an acute Fever than in the Beginning. For we ought early to provide for the Strength, that it may be able to bear up under the Height of the Diſeaſe, which deſerves particular Regard on the Account of its Symptoms and Criſes, to which Height all Food is inimical; which is therefore rightly allowed in the Increaſe of the Diſtemper, becauſe then the Symptoms are not ſo violent as in the State, neither is there

ſo much Strength, or Crudity, or Plenitude of Matter, as in the Beginning. All theſe Symptoms forbid any Aliment, (unleſs they rage ſo as remarkably to endanger the Strength,) a Crudity, or Repletion of Matter, and a confirmed Strength through the Courſe of the Diſeaſe. Theſe Symptoms appear in the State, the reſt in the Beginning. Wherefore *Hippocrates* judiciouſly obſerves, that when Diſeaſes are in their State, all things are moſt violent, and that therefore we ought to lay aſide all Manner of Diet.

CELSUS likewiſe tells us that the Beginnings of Diſtempers require Hunger and Thirſt. But the Increaſe, as it ſhews ſome evident Signs of Concoction, and the Body is not equally full, as having been evacuated by Bleeding in the Beginning, neither is it attended with ſo many Symptoms, juſtly admits a more plentiful Diet. Whence it is, that when in the Beginning Abſtinence is neceſſary, here Potulents are rightly given; and when in that Caſe, Potulents; in this, thin Suppings; when in that, thin Suppings; in this, ſomewhat thicker are required. However it muſt be remembred, that in this thicker Courſe of Diet, it muſt be given at different Times and in very ſmall Quantities, leſt by being given all at once it oppreſs Nature already afflicted with a very acute Diſeaſe. *Avicenna* likewiſe prudently adviſes us, to guard againſt the Injury that may accrue from this thicker Diet by dividing it, for thus Nature will

will be enabled much better to bear it. It muſt alſo be remarked, that the Food muſt always be more extenuated, the nearer we approach to the State, upon account of the Symptoms forbidding any Aliment, which Symptoms always increaſe as the Diſtemper advances towards its Height.

OF

OF THE

CURE

OF

Continual FEVERS.

SECT. III.

Which comprehends their State.

CHAP. I.

Of the critical EVACUATIONS.

ALL Things being diligently obſerved, as I have ordered, through the Beginning and Increaſe of the Fever; when we are arrived at the ſtationary Period, we muſt firſt ſee by what means Nature attempts to throw off the corrupted Humour, and aſſiſt her when ſhe is infirm.

infirm. Neither is what *Hippocrates* ſays at all repugnant. When Matters are come to a Criſis, Things muſt not be interrupted by any Medicaments or other Irritations, but ſuffered to take their own Courſe. For in this Caſe we do not provoke the Matter, but gently impel it whither it tends, and as it were give labouring Nature a helping Hand, by the Uſe of ſuch moderate Things as do not in the leaſt diſturb her Work after the Manner of purging Medicines. For as it is unneceſſary to interpoſe when Nature is capable of duly finiſhing every Thing herſelf, ſo it is abſolutely requiſite that we aſſiſt her when ſhe labours under any very difficult Attempt; which muſt be particularly obſerved in our cold Climate, where the Criſes procceed ſlowly and imperfectly.

THEREFORE if the Blood is ready to flow from the Noſtrils, which ſometimes happens, we muſt promote it by introducing Briſtles into the Noſe. Theſe following are Signs of the Blood's approaching Flux: Certain bright Colours ſeem to play before the Sight, with a Heavineſs and Tears in the Eyes: The Cheeks and Noſe redden, and the Ears grow deaf: The Hypochondres are diſtended without any Pain: The Breathing ſuddenly grows difficult: And the Head waxes hot, attended with an unuſual and painful Pulſation. The Noſtrils likewiſe, at the immediate Approach of the Flux of Blood, are ſeized with an Itching. This Evacuation

vacuation is frequent in Inflammations of the internal Viſcera, but not ſo in ſimple Fevers.

FARTHER, if the Matter tends to a Diſcharge by Vomiting, and that does not ſucceed readily, it muſt be provoked and incited by introducing a greaſy Finger into the *Gula*, or elſe by drinking Barley-Water, to which is added a good Quantity of Oil and Syrup of *Sorrel*. Exceſſive Vomits are pernicious, in as much as they weaken the Stomach, inflame the floating Humours by too great an Agitation of the Body, and increaſe the Fever. Theſe precede a Vomiting; a Gnawing in the Stomach, Head-ach, Vertigo, darkiſh Images before the Eyes, a Nauſea, a Tremor of the lower Lip, much thin Saliva flowing from the Mouth.

WHEN the morbid Matter flows off with the Urine, (which ſometimes happens in continued Fevers) we muſt uſe diuretick Medicines. For the Length and Straitneſs of the Paſſage makes ſome Aſſiſtance abſolutely neceſſary. Wherefore we may give the Patient hot Barley-Water, in which have been boiled *Melon-Seeds* and Roots of *Parſley*, for his Drink. That the Humour begins to be diſcharged by the Bladder, is manifeſt from hence, that there are no Signs of any other Evacuation in the Body, only a large Quantity of thick Urine is often obſerved to be voided.

IF there be a Propenſity in the Humour

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to be thrown off by Stool, we must absolutely abstain from all purging Medicines; first, because they are unnecessary, the Passage through the Intestines being so open that the Matter may be conveniently purged off at Nature's Pleasure; secondly, because *Hippocrates* likewise advises us to abstain entirely from all Purgatives in the Height of an acute Fever, as weakening and inflaming the Patient, as well by their own proper Power and Heat, as that which they raise in agitating the Body. Besides, in too great an Evacuation excited by Medicine, it happens that the sound Juices are likewise carried off, and the vital Spirits too much dissipated; and how dangerous this is, sufficiently appears, in that the Body, being exercised with a continued and acute Disease, could scarce preserve its own proper Strength. Not to mention the Dysenteries which often happen from a Medicine's being taken into a lax bilious Belly. Thus it is plain, that as we must never give purging Medicines in the Height of an acute Fever, so must we by no means when there is any Flux of the Belly. But if (as often happens in our Climate) Nature has not sufficiently thrown off the Humour, then it may be corrected by Purgatives, not in the stationary Period, but in the very Declension.

WE shall now treat of critical Sweats, which are peculiar to all Kinds of Fevers, and especially such as are acute. These are

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immediately preceded by a certain Rigor, which was not perceived through the whole Courſe of the Diſtemper before. At this time the Belly and Bladder void but little, and the Feveriſhneſs increaſing excites a violent *Delirium*. Beſides the external Parts of the Body grow very hot and red, and hence a hot and unuſual Vapour ariſes. The Pulſe is undulatory, and remarkably ſoft. It is neceſſary, when the Sweat is ariſen, to encourage it till it has flowed in a ſufficient Quantity; and to promote it, when it flags, by a moderate Heat from the Bed-Cloaths, a warm Clyſter, Reſt, and if it be poſſible Sleep it ſelf. You may likewiſe aſſiſt it by now and then wiping it off with a warm Cloth; for one Drop being wiped off draws forth another. If the Sweating be too profuſe, it muſt inſtantly be checked, leſt it ſhould endanger a Swooning. Therefore the Body muſt be eaſed of its Load, by partly taking off, and partly raiſing, the Covering, and brought to a moderate Degree of Warmth. The Legs and Arms may be laid bare, and the Bed hung round with Vine or Willow Branches, and all the abovementioned Means made uſe of to render the circumambient Air cooler. The Face may likewiſe be wetted with a Sponge dipped in Oxycrate; it is uſeful to wipe off the Sweat often, for being left to cool upon the Outſide of the Skin, it ſtops up the Pores, and prevents the Egreſs of the ſucceeding Sweat. At this time likewiſe drier Food may be given

ven the Patient, and much Drink muſt be avoided as well as the frequent Uſe of Clyſters. And, if the Strength will permit it, the Patient may be carried into a cooliſh Place.

THE Sweat being over, the Pulſe entirely quiet, and the Patient free from his Fever, or at leaſt as little feveriſh as may be, he ought now to be refreſhed with ſome humid Aliment, of good Juice and moderate Conſiſtence, and after the Diſtance of two or three Hours compoſe himſelf to ſleep. Theſe are the moſt efficacious Remedies againſt the Dryneſs that has been contracted, and the beſt Reſtoratives of that decayed Strength, which has been afflicted and almoſt oppreſſed under a lingring Illneſs. Which Rule is to be obſerved after other critical Evacuations.

LASTLY, As it is greatly to be wiſhed, that theſe Kinds of Evacuation would begin and proceed according to our Deſire; yet it is not ſo always. For though Nature may have concocted the Matter, yet can ſhe not ſo readily expel it. Concoction is perfected by length of Time, and Expulſion in a very little while. Whence it is, that as in the former the Patient's Strength was valid enough, in the latter it flags, and requires ſome Aſſiſtance from our Art as it were to begin the Evacuation. This Aſſiſtance is placed in cold Water, eſpecially to promote Vomiting, Stools and Sweat. And how this muſt be done, we ſhall now proceed to ſhew.

CHAP.

CHAP. II.

Of drinking cold Water.

WE are now come to the Drinking of cold Water, which *Galen* ſays, is the ſecond amongſt the principal Remedies in continual Fevers. This is given by different Perſons in different Manners and different Times, and not a few wholly paſs it by. Wherein each have erred, and which is the true Uſe of *cold Water* I ſhall now ſhew. *Avicenna* orders cold Water to be drunk continually through the whole Courſe of the Diſtemper againſt Thirſt and the Concoction of the bilious Matter. This, as being a vain Opinion, we ſhall beg leave to reject. For crude Water hinders the Maturation of the Humours, and therefore cannot ſafely be given but in the State, when the Concoction is compleated. Others again offend as well in the Manner of exhibiting it as in the Time. Since they often order it to be drunk in ſmall Portions, fearing leaſt the Coldneſs of the Water ſhould do any Injury inwardly. Truly theſe Perſons make no great Progreſs in temperating the Fire of a continual Fever, but rather increaſe it, the Water being overcome by the Heat, and, if I may uſe the Expreſſion, affording it freſh Fewel. And *Hippocrates* judiciouſly obſerves, that in Bodies

dies parched up with Heat, Water generally turns to Choler, and creates a greater Drought, which happens the more readily, as a very ſmall Quantity of Water is the eaſier overcome by a great Fire. More timorous than theſe are they who entirely reject the Uſe of Water (by *Galen* called Ψυχροφόβοι) as dreading Crudities and offending the principal *Viſcera*. *Firſt*, Theſe People ſhew great Ingratitude to Nature, by overlooking an efficacious Remedy, which ſhe has ſupplied us with againſt the moſt deſtructive Diſeaſe to human Life. *Secondly*, They are ridiculouſly fearful, in not ſeeing, that no Injury can poſſibly accrue to the *Viſcera* from the cold Water, as being ſeized with the moſt violent Ardor, which may equal the Force of the cold Element, or certainly be ſo overcome by it, as to diveſt it of its refrigerating Faculty: Neither can it ſo well be ſaid to be conquered by the cold Water, as to have fell and periſhed with it, while they were fighting with contrary Forces.

WHEREFORE as this ſalutary Remedy of cold Water is not to be neglected in acute Fevers, ſo *Galen*'s Opinion ſeems undoubted, that the two grand Remedies in theſe Diſtempers are Bleeding, and the Uſe of cold Water; beſides, ſince this Author, when Bleeding has been omitted in the Beginning, places the ſole remaining Cure in cold Water, I think I ſhall not do amiſs in ſetting forth its genuine Uſe and Effects. Water is cold, hu-

mid and of groſs Parts. It is therefore when inwardly taken, difficultly concocted, and lies in the Stomach a conſiderable Time before it is paſſed thro' the Body. Wherefore it neither incides, nor deterges, neither does it promote Stool or Urine, or impel the Tranſpiration which is made by the Skin. Since Water has theſe Properties, it is plain it can never be given to concoct the Matter, and that therefore it can have no Place in the Beginning or Increment of Fevers. Neither can it then properly be given as a Refrigerant, if not for the Concoction of the Matter; becauſe the End of Cooling is better anſwer'd by thoſe Things, which both refrigerate, incide, and abſterge the Paſſages, ſuch as we have before preſcribed. Beſides, neither can Water, when given in ſmall Quantities, cool, as being conquer'd by the Heat, and converted into its Fewel. But ſome will throw in great Quantities of cold Water often, and at ſtated Times, and by this Means conquer the febrile Heat. Truly theſe People are not apprized what Kind of Cooling they may perhaps afford the *Viſcera:* But by incraſſating the morbid Matter, and ſhutting it up in the Body, they render it much more difficult to concoct, and likewiſe ſhut up the Pores, by which it ought to be evacuated: Add to this, that they lock up the Urine, Stools and Pores of the Body, and by bringing on Crudities they add to the Length and Violence of the Diſtemper. For *Hippocrates* well obſerves,

ſerves, that tedious Concoctions intimate a ſlower Solution of the Diſeaſe. Therefore it is no Wonder, that he ſhould be in Danger of periſhing, who has been long and continually afflicted with a violent Diſtemper. And tho', through a pretty confirmed Strength, a Fever may not always kill, but perhaps grow ſluggiſh, yet it makes a Sickneſs long and dubious, which may continue even to the fortieth Day. Wherefore *Razes*'s Opinion is the more to be condemned, who ſays the Patient ought never to deſiſt from the Uſe of cold Water; and that this Freedom in drinking it, altho' it retardeth the Criſis, is much ſafer than abſtaining entirely from it: And he likewiſe ſays, that he has found by Experience, that more have been ſaved by drinking, than refraining from it. But this *Arabian*'s ill-grounded Experiment does not weigh ſo much with me as the Opinion of *Hippocrates*, *Galen*, *Ægineta*, *Ætius*, *Tralli-anus*, and *Celſus*, and the like, founded upon Reaſon and ſound Practice. To omit, ſays the ſame *Razes*, the Extinction of the Fire, is to ſuffer the Patient to run head-long to Deſtruction. But this Extinction is more ſafely perform'd by thoſe Things which beſides their effectually cooling, help towards concocting of the Matter, by their inciding and abſterſive Faculties, both which are wanting to cold Water. Beſides, drinking cold Water thro' the whole Courſe of the Diſeaſe, not only obſtructs the Maturation of

the Matter, but becomes ſo familiar to Nature, that it acts with much leſs Efficacy in in the Height of the Diſtemper, when, as ſhall be hereafter ſhewn, it ought to be liberally drank, that it may impel the Humours to an Excretion. But ſome will object, that by the continued Supply of cold Water Sweat may be promoted either in the Beginning or in the Increaſe of a Fever; namely, by driving the Heat towards the extreme Parts of the Body by its Coldneſs, and the Matter following it at the ſame Time. But this is abſolutely to compel Nature to the Expulſion of a Humour, not yet concocted or ſeparated, againſt her Will. Which Method, as it is widely diſtant from Nature's Deſign, (who never moves any Thing of her own Accord, until it be firſt concocted,) ſo will it be ſo far from anſwering, that, on the contrary, all the Effluvia of the Body may happen to be ſtopped, the Concoction already begun, retarded, and the whole Work of Nature interrupted.

Well then, at what Time of a continual Fever, and for what End muſt cold Water be given? This I will endeavour to explain in ſuch a Manner, as fully, I hope, to ſatisfy all learned Men. Becauſe cold Water encreaſes Crudities, it cannot be uſeful in the Beginning and Increaſe of Fevers. For at thoſe Times, the Humours are not yet fully maturated. But neither can the Declenſion by any means require the Uſe of cold Water, when the

the morbid Matter is exhauſted, and the *Viſcera* weakned with the Illneſs, and no longer affected with any violent Heat, may eaſily be injured by the Application of cold Water. Therefore the Height of the Fever is the only Time when cold Water may be given with any Succeſs; not in order to promote the Concoction, which is then compleated, or ſuppoſe it be not, yet it cannot receive any Aſſiſtance from the Uſe of cold Water; but as this cold Water may begin ſome critical Evacuation, either by Vomit, or Stool, or particularly Sweat.

THINGS being thus; it ſeems that Water ought then to be given, when the Matter is moſt concocted, namely, in the very State of the Diſtemper; and that it is not at all proper in the Beginning or the Increment, becauſe then the Humour (as it wants to be concocted) can no Ways ſafely be thrown off, either by Nature or Art. In exhibiting cold Water, *Ætius* ſays that we muſt avoid the Beginning and Increaſe of the Fever, but chuſe that Time when the Fever is at the Height. And for my Part I take that very Point of Time to be the moſt proper for drinking of cold Water; ſeeing that then the Fever, Ebullition, Thirſt, Inquietude, Pulſation of the Heart and Arteries, are all in Extremes. For by this Means the Bowels are leſs hurt by the Cold, and the Conflict between the Fever and the cold Water becomes the more ſevere; whence a ſurer and more plentiful Evacua-

tion afterwards enſues. And that this may ſucceed the more happily, we muſt provoke a Coveting of Drink; as when the Patient is extremely parched up, and greedily covets the limpid Liquor in the Glaſs, we muſt firſt deny it him for ſome Time, till he even pants for it, and then ſuffer him to drink as much as he will, even to Satiety. After this, if the Belly begins to flow, or a Vomiting to break forth, they muſt be encouraged. And then, by carefully covering up the Patient in his Bed, a Sweat ariſes, which muſt be continually wiped off, till it has flowed in a ſufficient Quantity.

AT preſent, it may not be amiſs to explain the Reaſon why cold Water ſhou'd promote theſe ſeveral Evacuations. When the Fever has attained its Height, as the offending Matter is concocted, ſo are the Symptoms the moſt violent. I ſay, the Burning of the Body, the Pains in the Head, Thirſt, Watchings, Deliria, Inquietudes, and the like are vehement. With theſe Diſorders Nature is ſo afflicted and diſturbed, that it is ſometimes impoſſible to prognoſticate a Criſis with any Certainty. Beſides, ſhe ſometimes ſinks under theſe Attacks, when the *Viſcera* burnt up with exceſſive Heats are deprived of their proper Office, and Strength: And the rageing Humour being fluctuating, and ready to be evacuated, ſince it cannot be directed by Nature to its proper Exit, which is now exerciſed, and almoſt ſubdued, by ſo many and ſuch violent Symp-

Symptoms, often turns its whole *Impetus* upon ſome principal Part, and occaſions Death. Upon this Account *Hippocrates* determined, that in acute Diſeaſes the Signs of Safety or Deſtruction were not abſolutely certain. Wherefore, that we may prevent theſe dreadful Attacks of the Humours concocted and ready for Excretion, as alſo give afflicted Nature ſome friendly Aſſiſtance, when a laudable Evacuation is begun, it will be proper to throw in a very large Quantity of cold Water, from whence all theſe Advantages will ariſe: The *Viſcera*, which are burnt up by the Heats of a moſt ardent Fever, may be brought to a cool Temper without any Injury; by which Means the native Heat of the ſolid Parts being refreſhed as it were by a certain new Strength, attempts to expel the peccant Matter. Whence it happens, that the Humour, which is already concocted and prepared for Expulſion, is immediately thrown off either by Vomit, or Stool, but more particularly by Sweat. Which Motion of Nature is not a little aſſiſted by cold Water, which naturally drives away and diſpels Heat. *Avicenna*, tho' he did not well underſtand this Matter, yet found by certain Experience, and does tell us, that cold Water, all other Circumſtances concurring, is the beſt Remedy againſt theſe Kind of Fevers; and that it often aſſiſts Nature in expelling the Matter by Vomit, Stool, or Sweat. And it may be obſerved, that ſometimes one Evacuation,

cuation, and ſometimes another, happens ſingly, and ſometimes two, and not ſeldom all together: I mean Vomit, Stool, and Sweat. By this Means I have cured a great Variety of Patients, who, when they were arrived to the ſtationary Period of a continual Fever, and were afflicted with extreme Drought and Heat, being aſked whether they coveted to drink or not, and Liquor being ſet before them (that ſo their Deſire of drinking might be increaſed); when they had greedily drank once or twice the Quantity of *three* or *four* Pints, they began ſoon after to void, both upwards and downwards, extremely yellow Bile, with the Water they had drank. After which, laying themſelves down and being well covered, they have in a ſhort Time ſweat all Night, and even while they have been in a deep Sleep, in a very plentiful Manner; which being ended, they have entirely loſt all their Feveriſhneſs for the future. From whence it clearly appears, that cold Water conſidered as a medicinal Drink, ought to be given but once; and not, as the *Arabians* pretend, that it ought frequently to be taken, in the Room of common Drink, both to remove Thirſt, and alſo to promote the Concoction of the Bile.

CHAP.

CHAP. III.

What Obſervations are neceſſary to be obſerved in drinking cold Water.

IT is almoſt univerſally known that cold Water is to be given in acute Fevers: But in what Seaſon, and to what Bodies, and in what Manner it is moſt conveniently given, ſeems not to be ſo well underſtood. This is a Matter of great Importance and requires the niceſt Obſervation. The Perſon therefore who is to drink cold Water, muſt not do it till the Fever, the Humour being concocted and fit for Expulſion, has arrived at its ſtationary Period; and till himſelf being affected with the greateſt Heat and Drought, on the critical Day, experiences the moſt violent Attack of his Fever. For at this very Time the Humour is the moſt oppoſed and ſollicited by Nature to a Secretion. Which Attempt of Nature the cold Water promotes, and lays a Foundation for a laudable Evacuation. Neither at this Time is there the leaſt Danger of any internal Injury from the Violence of the cold Water; in as much as the Viſcera being inflamed with the febrile Heat, this Heat, meeting with a contrary Element, like a Bulwark entirely blunts the Edge of its Attack. For as much, ſays *Galen*, as the Heat ſuffers from the Cold, ſo much that

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acts in its Turn upon this. As to the Quantity of cold Water to be taken in, it ought to be so great as to be able, with the Assistance of Nature, to overcome the feverish Heat, and expel the morbid Matter out of the Body. Wherefore these cool Draughts ought at this Time to be repeated, and the Patient suffered, according to *Galen*'s Advice, to drink as much as he will, until there appear some probable Sign of a future Evacuation. If a less Quantity is drunk than ought to be, it is forced to yield to the feverish Heat, and adds to the Distemper. And if too large a Quantity be taken, it weakens by its great Coldness both the Stomach and Liver. Wherefore it ought to be moderated according to the Temper of the Body, and the Violence of the Disease. For since, as he says, the Measure of every Remedy cannot be ascertained; our Art is rendered very conjectural. Some prescribe four Pints of Water. Others suffer the Patient to drink till he is seized with a Coldness and Tremor. For my Part, I think the Quantity ought to be regulated by the Constitution of the Patient, and the Vehemence of the Fever. However in general, if it is likely to prove serviceable, it ought to be drunk to Satiety.

IT is to be observed, that some Things sometimes happen, which confirm us in giving cold Water liberally, and others which instruct us to use it with greater Caution and

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Moderation, or elſe wholly to abſtain from it. The firſt are, the violent Burning of the Fever, Youth, good Habit of the Body, ſound *Viſcera*, and with theſe (as it generally happens) a good Degree of Strength, hot Weather, and Cuſtom. The intenſe Heat of the Fever ſuſtains the Impetus of the cold Water without any Injury. Youth enjoy a firm Strength, which is able to reſiſt (if it proves injurious) the Oppoſition of the cold Water, eſpecially, if there be a good Habit of Body, and the *Viſcera* ſufficiently guarded with Blood and Fleſh. It is likewiſe neceſſary that the native Strength and Heat be valid, leſt, by Reaſon of any Impotency herein, the cold Water ſhould do any inward Violence.

THE Summer likewiſe contributes greatly towards breaking the Force of the Water, which, beſides the Ardor of the Diſtemper, ſuperadds its own Heat to that Body which is to be attemperated by the Coolneſs of the Water. But if, beſides this, the Patient has been accuſtomed, during his Health, to the Drinking of cold Water, he may now do it with the greater Confidence, as having learned by Experience, that the *Viſcera* can familiarly bear that cold Element: For, if in a ſound State of Health, he could drink cold Water without any Hurt, much more will he be able to do ſo now, when he is almoſt burnt both inwardly and outwardly with the moſt extreme Heat, which Heat ſtrongly guards

guards the *Viſcera* againſt the cold Water. But it muſt be remembred, that ſuch Perſons muſt drink more than others, that it may have the greater Efficacy, which is always impaired in Things cuſtomary and familiar. Therefore, what is loſt by Cuſtom, muſt be compenſated by the Quantity.

IN the next Place, we muſt conſider thoſe Things which either render theſe cold Potions dangerous, or elſe entirely diſſuade us from them. An Obſtruction of the putrid Humours not yet concocted, any Tumor or Pain in a principal *Viſcus*, a ſudden Imbecillity of any Part, particularly of the Ventricle, Liver, or Spleen, too thin a Habit of Body, and infirm Strength. That cold Water is pernicious in a Crudity and Obſtruction of putrid Humours, appears from its Properties, which I have largely explained above. For being crude and adhæſive, it ſhuts up all the Effluvia of the Body. Wherefore, it likewiſe prevents the corrupted Humour, the Veſſels being obſtructed, from being concocted by Nature, or duly ſecerned from that which is benign. Upon which Account, *Galen* juſtly forbids cold Water being drunk by ſuch, who labour under any Obſtructions or putrid Humours not yet concocted. Wherefore, we muſt wait the Concoction, eſpecially, in a Synochus, which takes its Riſe from a too copious and craſs Blood, when the Paſſages being opened and deterged, the putrid

trid Humour already concocted and separated, is fit to be discharged.

ALTHO' in Fevers excessively ardent, and such as melt down the Body, Necessity sometimes compels us to administer cold Water in the Beginning and Increase of the Distemper, that the Heat which is now extreme, may be moderated, and that the morbid Matter being somewhat cooled, may rage and scorch the Patient less, and be expelled better and much sooner, by a proper Evacuation. But if the Bile should be incrassated by the Heat; then indeed, as the Disease is protracted by the Drinking of cold Water, so the Violence of that dangerous Burning is obtunded.

BUT this extraordinary and forced Exhibition of Water is to avert the Danger of Death. And that this has often happily succeeded, is confirmed by the Testimony of *Averroës*; who thinks it much more eligible, to render the Fever slow and lingring, by the Use of cold Water, which may be cured, than to suffer the Patient to be overcome by the Heat and Violence of the Distemper. The same Thing is said by *Avicenna*: If at any Time, thro' the Violence of the Heat and Drought, there should be any Danger of a wasting Dryness and Consumption, you must not forbid the Use of cold Water. For a Crudity is more eligible than a *Marasmus*: Which suddenly falling on the Patient, and liquefying his Body by the Heat, consumes

conſumes him. *Galen* likewiſe adminiſtred cold Water in the Beginning to theſe Kind of Patients, having been firſt nouriſhed by the Cream of Ptiſan, and this that they might not fall into a Hectick. For the Flame being extinguiſhed, and the Bile thrown forth, the Illneſs oftentimes went off. But this Author thought theſe Fevers ſo dangerous, that tho' there was an Inflammation, he nevertheleſs preſcribed cold Water, which is extremely injurious to it; judging it better to let the Inflammation increaſe for the preſent, than that the Patient ſhould run into a Hectick. But it muſt be obſerved, that theſe Kinds of Fevers, which are rendred ſo vehemently ardent and colliquative from a very thin and pure Bile, ſeldom happen to our Countrymen; inaſmuch as thro' the Temperament of Nature, Climate, and Manner of Diet, a great Part of the Phlegm is mixed with the Bile, whence ariſe Fevers leſs acrid. But among the Inhabitants of *Greece*, and much more of *Arabia*, theſe Fevers are frequent; wherefore, a greater Liberty of drinking Water may be taken here. For the Craſſitude which is hereby communicated to the Matter, is ſo far from being hurtful, that it is greatly ſerviceable on Account of the Fluxility of the extreme thin Bile. Which may ſerve to confirm the Opinion of *Avicenna*, *Razes*, and *Averroës*, who upon this Account were much more indulgent in adminiſtring cold Water than the *Greeks*.

HITHERTO,

HITHERTO, we have diſcourſed only of continual Fevers, but not of Intermittents; eſpecially, if theſe are generated from a craſs and tenacious Humour. For cold Water can at no Time ſuit with theſe; inaſmuch as the craſs Matter, altho' concocted, can neither readily, or ſafely be impelled to a Secretion, by the Impetus of the cold Water. Beſides, the *Viſcera*, which are not afflicted with ſuch violent Heats as in an acute Fever, are more eaſily offended by the Rencounter of the cold Water. And the febrile Matter, as I have juſt now ſaid, will not yield any other ways, but muſt be carried off by Purgatives, and other efficacious Auxiliaries. Wherefore, *Galen* judiciouſly obſerves, that cold Water is always a Remedy againſt a Fever, as a Fever, but not ſo upon other Conſiderations; as, when the Putridneſs ariſes from the Obſtruction of a craſs or tenacious Humour.

I SHALL now ſpeak of the Tumors of any principal *Viſcus*, which diſſuade us from all uſe of cold Water, whether it be a Scirrhus, Phlegmon, or Oedema. For an Eryſipelas, ſays *Galen*, if it be genuine, cannot be cured any other Way. If there be a Scirrhus, particularly in the Liver and Spleen, the drinking cold Water adds to the Diſeaſe, in that it cauſes a greater Obſtruction, and by its Coldneſs renders the Hardneſs the more rebellious. And in a Phlegmon, the Maturation is likewiſe hindred, and but a ſmall Reſolution

Reſolution can be made in the inflamed Viſcus, if cold Water be drunk. And there is no doubt but that an Oedema is injured by cold Water; ſince the Diſeaſe and its Cauſe agree with the Qualities of the cold Water.

Now follows the Imbecillity of an internal Part that is moſt obvious, which renders the Drinking cold Water hazardous. For in ſome, the Gullet is ſo injur'd that they can ſcarce ſwallow: In others, and eſpecially thoſe who have not been uſed to it, the Stomach being cold and weak, has contracted a violent Singultus. In ſome, the Liver, Colon, Lungs, or Diaphragm, have been greatly offended. Some, the *Genus Nervoſum* being wounded, have ſuddenly, after the drinking of cold Water, been ſeized with a Difficulty of Breathing, Spaſms and Tremors. But it may be noted, that tho' theſe Inconveniences may render Water formidable, yet muſt they by no Means ſet aſide the Uſe of it at all Times in the Height of an acute Fever. For it is ſometimes more eligible to render any particular Part infirm, by the drinking of Water, and thus to reſcue the Patient from a moſt ſevere and doubtful Diſtemper, than to leave him deſtitute of ſo great a Relief in the uncertain Hope of Life. We ought to conſider the Inconveniences on both Sides, and compare them together, that we may ſee which is the rather to be followed either for the Relief or Conſervation of humane Life. If the Injury, ſays *Galen*, accruing

accruing from the Uſe of cold Water be inconſiderable, we may confidently order it to be drunk; but if any great Inconvenience is apprehended, we muſt abſtain from this, and make uſe of other Means.

THE Habit of the Body comes next to be conſidered before we exhibit cold Water, which, if it be too thin and lean, forbids its Uſe. For the Viſcera are eaſily offended with the crude Element, as not being well-defended againſt its Attack by Fleſh and Blood. Tho' *Galen* is not very fearful of cold Water, when given in a certain Quantity, to thoſe Perſons, who have contracted this thin Habit from Laſſitude, Anger, Watching, Cares, and the like Affections of the Mind, and have thereby fallen into a Fever, which renders the Skin dry, and excites a violent Heat. For it ſeems better, even with ſome Danger of the Viſcera, to extinguiſh the Fever with cold Water, than to ſuffer the Patient to run into a Hectick; eſpecially, if it be Summer-time, and the Seaſon hot and dry. But it is likewiſe neceſſary that there be ſome Degree of Strength toward the giving of cold Water ſafely; for otherwiſe the Water, there being an inward Weakneſs, will overcome the natural Heat, and retard the Criſis. The Fear of this, prevents our giving Water ſo confidently to decrepit old Men, and Perſons exhauſted by frequent Evacuations, or long Illneſs. By this Time, think, I have abundantly explained the Uſe

of cold Water: Which I would recommend to the Knowledge and conſtant Practice of many Phyſicians.

CHAP. IV.

What Diet is neceſſary in the Height of a continual FEVER.

SINCE in the ſtationary Period, Nature very powerfully attacks the Diſtemper, and the Symptoms in general grow violent, all Manner of Diet ſeems, as near as may be, juſtly to be denied; and this, leſt we diſtract Nature, intent upon the Diſeaſe, and buſy in removing the imminent Danger of Life, by the Concoction of the Food. For the Humours will better be ſubdued alone, than the Food when joined with theſe. Beſides, the Aliment, by Reaſon of the Violence of the Symptoms, cannot be duly concocted: And therefore, not only diverts Nature from her Work, which, unleſs hindred, would in a ſhort Time come off victorious; but, being deſtitute of a kindly Concoction, corrupts and increaſes the Diſeaſe. And tho', in regard of the Illneſs, we muſt always be ſparing in adminiſtring Aliment; yet, it follows plainly, that we muſt be moſt of all ſo, when the Diſtemper is moſt violent. Neither

ther ought we ſo much to dread any Danger to the Strength from the Impetus of the Symptoms. For this is now in a Manner ſuperiour to the Diſeaſe, the Matter being concocted and wholly ſubdued. And thoſe Symptoms, which immediately precede a critical Evacuation, threaten very little Danger, inaſmuch as they do not long continue, for the malignant Humour being excluded, they immediately ceaſe. Wherefore, I find, *Hippocrates* judiciouſly obſerves, that when the Diſtemper runs higheſt, then the moſt ſpare Diet muſt be uſed. And a little after, that in the very Height of the Diſeaſe, and a little before it, all Diet muſt be laid aſide. Therefore, perfect Abſtinence, or certainly Potulents alone can be uſeful in this Caſe, unleſs ſome remarkable Weakneſs ariſe, which ſhould make the Allowance of thin Suppings neceſſary. This is done in regard of the Strength, which muſt at all Times be relieved whenever it begins to be in Danger.

OF THE

CURE

OF

Continual FEVERS.

SECT. IV.

Wherein is comprehended the Declenſion of continual FEVERS.

CHAP. I.

Of thoſe BODIES, *which are actually upon the Recovery.*

EVERY continued Fever which has paſſed its Height, by a compleat Criſis, and proper Evacuations, and decreaſing neceſſarily, gives us hopes of a better State of Health, and certain Recovery. And this is the Time of its true Declenſion,

Declenſion, in which, *Galen* affirms, no one ever died; of the Diſtemper I mean, and not any new Error, either of the Phyſician, or the Patient. This convaleſcent State of the Body, the Diſtemper being now overcome, muſt not be irritated with Medicine, but ſupported by a proper Diet, ſuch as may gradually repair the Strength. At this Time we muſt likewiſe have ſome regard to the Air, Sleep and Watching, Exerciſe and Reſt, Stools, and the like. Add to this, that the *Viſcera* muſt be alſo gradually confirmed, which were impaired by the Diſtemper, and the evacuating Remedies. In like Manner alſo, if any of the former feveriſh Heat ſhould ſtill remain, it muſt be removed by proper Means. And we muſt take particular Care, that the Patient, who, by the Benefit of Nature, and our Art, begins to grow much better, be perfectly re-eſtabliſhed in his Health.

I SHALL begin firſt to treat of the Diet: This muſt be of a middling Conſiſtence, eaſily digeſted, temperate, (unleſs any reſiduary Heat ſhould require it to be cooling) moderately moiſtning, and liquid, affording a laudable Juice, which may both fortify and encreaſe the Strength: Such are Chicken and Capon Broth; or rather Suppings made of theſe boiled and contuſed together with the Broth. The Fleſh of Kids and Calves boiled, as likwiſe their Broth is good. Barley Ptiſan made with Chicken Broth is likewiſe

proper. And we must take great Care to refresh the recovering Patient with these Kinds of Nutriment: For he being exhausted, and labouring under a Want of vital Spirits, requires an Increase of Blood and Strength. Wherefore, *Avicenna* deservedly condemns too thin a Diet in these Circumstances as dangerous; and says, that it often produces an ill Habit of Body and a fresh Fever. However, the Diet ought to be taken in such Moderation, as not to overload by its Quantity, which oftentimes occasions very great Dangers. And in general, they who diet after this Manner, receive no Benefit either in their Bodies or Strength, from the Aliment which they take; and at Length (unless relieved by Abstinence or Evacuations) fall either into the former Fever, or another new one. It would be adviseable (in my Judgment, and that of *Avicenna*) not to suffer the Patient to eat to Satiety, but to order him to abstain from eating, even while he is under a Desire so to do. And this is wisely directed, since the Body being emptied and extenuated, requires plentiful Recruiting, which yet cannot be born by the wasted Strength; wherefore, we must order the Diet to be taken in small Quantities, and at several different Times: But as the Patient recovers, he should be indulged in a more plentiful Meal, at larger Intervals, till he arrives to the same Degree of Strength and Manner of Feeding with Men in Health.

Which

Which Seaſons are to be moderated according to the Rules laid down by *Hippocrates:* Thoſe Bodies, ſays he, which are ſlowly extenuated, are ſlowly to be recruited; on the contrary, ſuch as are ſuddenly extenuated, require a ſudden Reparation. Farther, Beer well boiled, of a moderate Age and Subſtance, is a uſeful Drink; as alſo white, light, and well-ſcented Wine, mixed with Spring or Barley Water. But very cold Water, as being prejudicial to the extenuated Viſcera, muſt be rejected. As in Meat, ſo in Drink, Intemperance, and too great Abſtinence, muſt be avoided. For one expoſes the Patient to a Relapſe, and the other to a Hectick. Eſpecial Care muſt be taken that the Patient do not drink too much when he eats. For by this Interpoſition of the Liquor, his Meat will float about without being ſufficiently compreſſed by the Sides of the Ventricle. Wherefore, at Meal-times, the Quantity of Potulents muſt be contracted, and only ſo much Liquor allowed as will eaſe his Tongue, and alleviate his Thirſt. But when his Food is concocted, he may be permitted to drink liberally; for this is very ſoon carried thro' the Body.

THE next Thing to be ſpoken to, is the Air, which ought to be temperate, leſt by its too great Heat it increaſe the febrile Ardor; or by its ſuperfluous Coldneſs injure the extenuated and emptied *Viſcera.* However,

the Patient may be cooled a little, in caſe any of the feveriſh Heat ſhould ſtill continue.

SLEEP is particularly neceſſary to Perſons upon a Recovery, and that at Night, after having eaten their Supper. For by this Means the Body, dried up by the late Fever, is effectually moiſtned, and acquires, the Juices and Spirits being recruited, better Strength. Wherefore Watching is very injurious, as it dries up and waſtes the Strength of the Patient. The convaleſcent Perſon ought not to ſleep but after Meals, becauſe that Sleep which is obtained when the Stomach and Veſſels are empty, exhauſts and dries up the Body.

A VICISSITUDE of Exerciſe and Reſt, that is moderate and anſwerable to the Strength, is uſeful. However the Exerciſe muſt be ſlight, ſuch as the being carried or gently walking round his Chamber. Gentle Frictions of the extreme Parts are likewiſe uſeful, as they repleniſh the Body and rouze the native Heat. Farther, a Recruiting of the Body (ſince it has been emaciated by the late Diſorders) is abſolutely neceſſary.

ALL Evacuations are accounted injurious, except that of the Belly, which, in convaleſcent Perſons, is bound up. No purging Medicine muſt by any Means be uſed (which the *Greeks* call Καθαρτικὸν) but a Lenitive one (by them called Ἐκκοπρωτικὸν) ſuch as Extract of Caſſia diſſolved in Chicken-Broth or Barley Drink; likewiſe *Elect. lenitiv. Diaprunon ſolutiv.*

ſolutiv. Diacatholicon, *Manna*, and the like. The ſame Purpoſe is likewiſe anſwered by emollient Clyſters made of fat Broths, *Caſſia*, and Oil of *Violets*. *Galen* prepared his only of pure Oil. But it muſt be obſerved, that theſe lenitive Medicines ought not frequently to be uſed, eſpecially thoſe which are taken by the Mouth in order to move the Belly, leſt by too many Stools (which are certainly at this Time uſeleſs) the Body ceaſe to be nouriſhed, the good Juices running off together with them. As every Evacuation, except moderate Stools, is hurtful to Perſons in a Recovery, ſo more particularly is the Uſe of Venery, which ſinks the vital Spirits, and diſſipates the bodily Strength. Farther, the Mind ought to be entertained with pleaſant and delightful Objects, whereby the native Strength and vital Spirits are raiſed, but anxious Cares, as they dry, are hurtful.

I SHALL now ſay ſomething about ſtrengthning the *Viſcera*, which have been much haraſſed and relaxed by the Diſtemper. And this Benefit may be acquired by moderately aſtringent and cooling Means. In which Number are the *Elect. Diarhodon*, *Diacorallion*; Troches made of *Roſes*, *Spodium*, and the like: Oftentimes where there is no Heat, and the Ventricle having been cooled by former Remedies does not digeſt well, *Aromaticum Roſatum* may be uſeful. But theſe Things muſt be uſed at no other Period of an acute Fever but the Declenſion, and that for

for Fear of the Aſtringency that is in them. This, as it is uſeful to convaleſcent Perſons who are already freed from the morbid Matter, and weak; ſo is it injurious to others, who ſtill experience the Force of the Diſeaſe, from the Retention of the corrupt Humour; unleſs there ſhould happen any profuſe Evacuation, which may ſink the Strength without Meaſure; I mean exceſſive Vomiting, Diarrhæa, and Sweat.

HITHERTO we have diſcourſed of thoſe Perſons, who, having experienced a compleat Criſis, are reſtored to a ſound State of Health. Wherefore we ſhall now deſcribe the Condition and Method of treating thoſe, who, by Reaſon of an imperfect Criſis, are not ſufficiently relieved, but continue liable to a Want of Appetite, Atrophy, Heats, Relapſe, and other Diſorders.

CHAP. II.

Of thoſe, who, by Reaſon of an imperfect Criſis, do not perfectly recover.

WHATEVER Criſis has not exhauſted the morbid Matter, but left a great Part of it in the Body, occaſions an imperfect and troubleſome Declenſion of the Diſorder. For at this Time, the Patient, tho' he takes proper and ſuitable Food, is neither

neither nouriſhed or confirmed in Strength, but finds himſelf much hotter than he ſhould be. The firſt Step to be taken in this Caſe, is, if the Humour be fit to be purged off, to exhibit ſome evacuating Medicine, which may bring away the Remains of the former Diſeaſe. If this be not done, either an Abſceſs or a Relapſe will enſue. This Medicine ought always to be prepared according to the Nature of the Matter, and the Meaſure of the Strength. All Vomiting is uſeleſs, unleſs ſome corrupt Humour has ſeized upon the Stomach. Oftentimes the Veſſels are conveniently purged by ſuch Medicines as are endued with a diuretick Quality. This Method muſt be purſued, when Nature ſeems to impel the corrupt Humour through the urinary Paſſages. But Bleeding muſt be entirely omitted, both on account of the peccant Matter, as alſo that the Strength has been greatly impaired by the late Evacuations. Wherefore I the more wonder at *Avicenna*, who, though he rightly obſerves that Perſons upon a Recovery, do not ſtand in much need of Bleeding; yet is deceived in this, that he at this Time opens a Vein, in order to let out the Reſidue of the bad Humours which ſtill remain in the Blood, and upon which account, he ſays, it is neceſſary to draw off the bad Blood, that ſo the good may be collected together. As if this Pravity of the Humours ought not rather to be removed by Purging ſolely; or as if it was an eaſy Thing,

Thing, and in a Man's Power by opening a Vein, to discharge the corrupted Humour, and leave the good Blood behind. Neither is this the only Case wherein our *Arabian* is mistaken, but likewise in the Estimate of the Strength, which, in convalescent Persons, on account of their Weakness, is not able to suffer any Loss of Blood. Not to mention that the Distemper cannot at this Time be violent (which is one principal Reason of opening a Vein,) since its greatest Impetus is already abated.

LASTLY, As to what relates to the Diet of these Persons, it must be remembred, that it ought to be thin, till, the Humour being exhausted, there are some Signs of a better Digestion. And I find *Hippocrates* rightly observes; that impure Bodies are the more injured, the more they are fed. After the Patient is well emptied of the morbid Matter, he must in every respect be treated, as has been already directed concerning those who are actually recovering.

MEDICINAL
OBSERVATIONS,
In THREE BOOKS.

Wherein are enumerated the

DIAGNOSTICKS, PROGNOSTICKS, *and* EVENTS,

OF THE

Several DISEASES incident to *Humane Body.*

Λέγειν τὰ προγινόμενα, γινώσκειν τὰ παρέοντα, προλέγειν τὰ ἐσόμενα, μελετᾶν παντα. *Hippoc.*

MEDICINAL OBSERVATIONS.

BOOK I.

In which are remarked thoſe Diſeaſes which afflict the whole Body.

BEING about to write ſuch Obſervations in Phyſick, as are neceſſary towards forming a right Judgment of Diſeaſes, I think it moſt appoſite to begin with thoſe Diſorders which ſeize upon the whole Body.

AMONG theſe, the moſt frequent and the moſt inimical to Mankind, is the Fever, ſo that ſome Authors tell us, no one ever loſt his Life without this Diſeaſe, unleſs ſnatch'd away by a violent Death. Wherefore I ſhall trace this Matter as high as I can; and firſt deſcribe that Kind of Fever, which, becauſe it is terminated in one Day,

Day, is by the *Greeks* called Ἐφήμερα, and by us the *Diary*. This manifeſts itſelf in the following Manner.

THE Heat in the whole Body is moderate, ſuch as is found in Perſons in a Paſſion, or filled with Wine. The Pulſe (which indeed is peculiar to this Fever) is immediately great, but as it is moderately quick and frequent, ſo is it equal and ſoft, and its Tenor proportioned to the Strength of Nature. The Urine undergoes very little or no Change at all. Neither is the Diſtemper itſelf preceded by a Loathing of Victuals, or a ſpontaneous Laſſitude of the Body, neither is there much Gaping or Propenſity to Sleep, or any Horror; but it comes on all at once of a ſudden, and is not attended with any violent Symptoms; ſuch, I mean, as Pain of the Head and Stomach, as likewiſe Nauſea, burning Heat, Inquietude of the Body, and the like. This Diſorder goes off ſometimes ſecretly without any apparent Evacuation; but oftner by a free Perſpiration, or at moſt by a pleaſant and moderate Sweat. It muſt likewiſe be noted that this Diary Fever almoſt always takes its Riſe from evident Cauſes, ſuch as Watching, Sollicitude, Sorrow, Anger, Heat of the Sun, Laſſitude, Drunkenneſs, Want, and the like; and that it is generally finiſhed in one Day, which Day if it paſſes, and likewiſe exceeds the third, it ceaſes to be a Diary, it turns into a Putrid one, which we ſhall hereafter deſcribe. In this Caſe, if the

the Body be very dry, there is ſome Danger of a Hectick. It is much eaſier to cure any diary Fever, than to diſtinguiſh it. Whence is generally follows, that it may ſooner prove injurious than be known. It attacks a Perſon of a bilious Temperament, and who is involved in Buſineſs, much ſooner, and with more Danger.

To this Place that Fever ſeems to belong, which, obſerving the Nature of the Diary, on Account of the Fervor of the Blood not putrified, manifeſts much Heat and Redneſs of the Body. Some of the *Greeks* termed it a Σύνοχος, and we a Fever of the continent Kind not putrid. This indeed exhibits the ſame Symptoms as the Putrid, but ſomething leſs evident. Tho' in this Caſe likewiſe the Head is either painful or heavy, and the whole Body, but particularly the Face, is extremely red and hot. Add to this a greater Sleepineſs, and ſtrong Pulſe in the temporal Arteries, a difficult Breathing, a great, full, frequent, and quick Pulſe. *Laſtly*, The whole Body grows ſluggiſh, and is ſeized with a Kind of a Laſſitude.

I COME now to thoſe Fevers which are attended with a Putridneſs of the Juices; among which we will firſt treat of that, which is occaſioned by a putrified Blood. This is, as well as the former, called by the *Greeks* Σύνοχος, and by us a putrid Continent. This Fever ſhews itſelf with the ſame Symptoms, as that juſt now deſcribed, but more apparent. But this Putridneſs is attended with a

greater Heat, the Throat and neighbouring Parts swell and burn, whence the sick Person's Speech is impeded; add to this that his Eyes are filled with scalding Tears, and in some the Belly swells, so that being struck it sounds like a Drum. The Pulse is great, vehement, quick, and frequent, as in the former Synochus, but here it is unequal, in the former not. The Urine is thick, red, and turbid, and without any Sediment. Sometimes also Pimples arise on the Surface of the Body, and as they are at different Times of different Colours, so very frequently are they either livid or black. This Disorder generally ceases after the fourth Day, but should it continue all that Time increasing, it may endanger the Life of the Patient, especially if the Tongue be rough, and black, the Eyes not able to bear the Light, and the Urine obscure like black Wine. When these Symptoms are wanting, and the Fever gradually decreasing grows milder, the Patient seems to be in a safe Way: But when the Disease is carried on with an equal Impetus from the first Attack, there is indeed more Security than when it increases, but greater Danger than when it declines. Which Observation must be made in a continent Fever not putrid. And it must be observed that the Synochus of both Kinds, generally happens to temperate, sanguine, and full-bodied Men. The Transition is likewise easy from a Continent not putrid into a Putrid, and from this again into a continued Tertian.

Now

Now follows that Kind of putrid Fever, which the *Greeks* call συνεχὴς, and we a continued one. This is akin to the putrid Synochus in the Continuation of the Paroxysm, however dissimilar in this, that this arises from either Kind of Bile or Phlegm, and that it has its Periods according to the Nature and Motion of these Humours, in which tho' it does not entirely cease, yet it remits, and gives the Patient some Respite. But the Synochus arises from putrified Blood, neither does it suffer any Remission before the Crisis of the Distemper. Neither does any Horror, Rigor, or Cold, precede the continued Fever, but the Patient is suddenly seized with a Heat; altho' sometimes the corrupt Humour about the Præcordia excites a Rigor or Horror for a little While, till it is thoroughly heated by the Fever. The Heat is always sharp and violent, and that the more on the Increase and State of the Paroxysm. The Respiration and Pulse are unequal. In that the Contraction is quick, and the Dilatation slower. The Pulse is sometimes quick and sometimes slow, sometimes strong and sometimes languid; when the Fit first comes on, it is quick and small; in the Height, besides its Velocity; it is remarkably strong, The Urine in the Begining, thick, red, and turbid, and has neither Cloud, Enæorema, or Sediment. It is likewise sometimes thin, but red, and not in the least transparent.

Lastly, whatever is evacuated from any Part of the Body, whether it be Sweat, Stools, or Urine, is generally of a very offensive Smell. The Continued, whether it be quotidian or quartan, is generally uncertain and irregular, so that it rages twice or three Times in one Day, on another it may not happen but once, or perhaps not at all. A continued Quartan is very rare, less rare than this is the Quotidian. The Tertian by us called *Febris ardens*, and the *Greeks* Καῦσος, is the most frequent of all. It is known by these Signs: The Body is burned up with the most violent Heat, and this more inwardly than without: Sometimes there is an obstinate Watching, at other Times a profound Sleep: The Tongue is dry, thick, rough, blackish, and bitter; there is likewise a great Difficulty of breathing; the Stomach begins to be affected with a Gnawing, a Loss of Appetite, as likewise a very violent Thirst, a great inward Heat. In some the Belly is open, in others bound. The Patient being extremely restless, ill sustains the Distemper, and is often disturbed with a Delirium. This Kind of Fever, as being excessively violent, is soon terminated. Therefore if it exhibits very good Symptoms from the Beginning, in most Persons it is solved on the fourth Day, in none it continues after the seventh. But then either a Vomiting or Looseness comes on, or Sweat breaks out all over the Body, or Blood from the Nose. This Disease as it

seldom

ſeldom happens to old Men, ſo it is very deſtructive to them. Young Men labour under it much oftner and with more Safety. It ſometimes turns to an Inflammation of the Lungs, and when this happens, the Danger is extreme. Both in this, and other continual Fevers, great Danger is ſignified, when a Jaundice comes on before the ſeventh Day, or when any one is ſeized with a Horror before the Matter be concocted, and the more ſo if the bodily Strength be very infirm; when after the Rigor the Patient does not recover his Heat; when there is a continual Watching, or Coma, or Delirium; when the Voice is intercepted, or the Hearing is obſtructed, or the Neck ſeized with a violent Pain, eſpecially in thoſe who are apt to fall into a Delirium; when the Patient in taking any Thing into his Hand, trembles; when the Thirſt is vehement, and the Body very ſqualid; or when, with a black Tongue, and a very dry Mouth, the Patient has no Thirſt, and his Mouth has an unuſual ill Smell; when a Singultus happens, eſpecially after a Looſeneſs, or after an exceſſive Effuſion of Blood; when in a Child the Belly does not anſwer, and he gets no Sleep, but often changes his Colour, and continually cries: For next to this is a Diſtenſion of the Nerves. When with an acute Pain of the Head the Precordia are revulſed, and the Blood is not diſcharged from the Noſtrils, or when this Caſe is neither accompanied with, nor carried off by a bilious Looſeneſs, or bloody Stools, or a Pain

in the Hips and Knees: For when the Viſcera are ſeized with a ſevere Pain, and with it a Diſtenſion of the Nerves ariſes, a Delirium immediately enſues. When the Præcordia are pained, together with a profound Sleep, or when there is a violent Heat and Gnawing in the Ventricle, if then the Belly is likewiſe bilious. When there is a great Coſtiveneſs with a continual Pain in the Head. When the Urine reſembles Water, it is generally attended with a Delirium. This Urine if it continues any Time, portends Ruine.

The Danger is the ſame, when the Urine, is red, thick, and confuſed, and of an ill Scent, or when it is often voided at ſhort Intervals, by ſmall Quantities, and with Difficulty, or when it is concocted without any Reaſon, or comes away involuntarily. When the ſick Perſon being delirious is not ſenſible of the Force of the Diſtemper. When at the firſt Acceſs of the Fever a profuſe Sweat immediately breaks out, or the Mind begins to be diſturbed, or any Part of the Body relaxed. *Laſtly*, when the Fit on the third Day grows vehemently hot. In the next Place we muſt lay down thoſe Signs, which in an acute Fever denounce certain Deſtruction; which we may know to be at Hand, if in a violent Diſeaſe the Body be extremely infirm, and the more if there be any Rigor or Delirium; if the Patient having loſt the Uſe of his Reaſon is ſilent, if he was not otherwiſe deprived of his Speech. If

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the Lips, Eyelids, Eyes, or Noſe are diſtorted thro' Weakneſs; if at this Time likewiſe the Patient neither ſees, nor hears, or if having loſt his Voice, he lies with his Eyes winking, and there be no Flux of Blood from the Noſtrils, or Vomiting, whereby this Diſorder may be removed. Which Diſorder will be the more ſevere, the greater Difficulty there is in Breathing. It is equally to be dreaded, if the Eyes water, or ſubſide much, or grow very prominent, if they grow dim, if they move at random, or on the contrary, if they become immoveable, or laſtly are diſtorted; if the white Part increaſes, and the black diminiſhes, or when being hid under the upper Eyelid they grow red, and pale, or black Veins are to be ſeen upon them; or if any Thing grows over the Eyes like a Spider's Web, or if the Corners of them be gummed up; if the Eyelids are not exactly cloſed in the Time of Sleep, and theſe are very pale, unleſs this be occaſioned by a Diarhæa; and, in the laſt Place, if one Eye be leſs than the other. Add to this that if a very acute Pain falls upon the Ear, eſpecially in young Perſons, it generally carries them off, within the ſeventh Day. But older Perſons, ſince their Pains and Fever are not equally violent, are thought to be in more Safety. If upon Account of the Fever the Teeth gnaſh, and alſo become livid, black, or extremely dry; as alſo if the Tongue be dry at the Beginning of the Diſtemper,

then rough, and afterwards black and thick. If the Patient lies with his Mouth open, and ſleeps continually; or if he ſeems to be ſtrangled of a ſudden, and can neither ſwallow his Drink or Spittle, and that without any Tumour in the Fauces. If the Neck be difficultly turned, or ſo diſtorted, that the Deglutition is thereby rendred troubleſome. If the Breath be cold, if the Pulſe be obſcure, thick, and intercurrent. If the Thirſt, before vehement, be now aboliſhed, the Fever ſtill equally violent, and the Tongue equally dry and black. If the Vomiting be bloody, or mottled with a Variety of ill Colours, or of a bad Scent. If the Patient catch at the Threads of the Bedding with his Fingers, or lying near a Wall endeavour to pick any Thing off it; if the Nails or Ends of the Fingers grow livid, or black; tho' to become black is not altogether ſo dangerous, if the Strength be ſufficient to bear up under the Diſtemper, and there be any probable Signs of Recovery: For then the Patient recovers a good State of Health; but the black Parts corrupt and fall off. It is likewiſe dangerous, if the Belly be tumified, and the more ſo if any purging Medicine has been given; or if it be diſtended with any *Flatus* which cannot be emitted. Alſo if any black Choler be thrown off, either upwards or downwards, in the Beginning of the Fever. Likewiſe if the Stools be looſe, black, or pale, fat, or of an ill Scent. If theſe be

checked

checked with a ſudden Palpitation of the Heart, and a Singultus. If the Urine begins to be intercepted, or to be voided black, thick, and fœtid; or if the Urine, which was before good, of a ſudden exhibit bad Signs; or if thro' the whole Courſe of the Diſtemper, it differs nothing from that of ſound Perſons. Likewiſe if Blood itſelf be voided with the Urine, or if the Bladder grow painful and hard. It is equally fatal, if in the Beginning of the Diſeaſe, the Extremities of the Body grow cold, eſpecially if they are not able to recover their Heat; or if the outer Parts of the Body be cold, while the inner are burnt up with Heat, and attended with great Drought. Add to this, if the febrile Heat abate ſuddenly without any apparent Cauſe: If a Sweat ariſes when the Strength is infirm, or if there be any Faintneſs of Spirits. Alſo if the Patient lies upon his Back, and contracts his Knees, or often ſhrinks down towards the Bed's-foot. If he uncover and throw about his Arms and Legs, which yet are not hot. Likewiſe if any lower Part of the Body before afflicted with Pain, be ſuddenly eaſed, and the Pain tranſlated to the Viſcera. If any Ulcer, which came either before, or in the very Fever, be dry and livid. Alſo if Puſtules break out all over the Body, and no purulent Abſceſs ariſe. Farther, if any Abſceſs ariſe near the Ear, which cannot be maturated, and there be no Flux of Blood from the Noſtrils, and no copious Diſcharge

of

of thick Urine. Beſides theſe, if there be any cold Sweat, and the Patient be much afflicted on the fourth, as likewiſe on the ſeventh Day, and that there be no Criſis on the eleventh; or that the Patient grow cold on the critical Days, without any ſubſequent Sweat. If a Rigor ſhould alſo frequently recur, and the Diſtemper be not at all alleviated by it. *Laſtly*, Things are come to extremes, if the Temples are collapſed on Account of the Fever, the Noſe grows ſharp, the Eyes hollow, the Ears cold and languid, with the lower Parts turned ſomething upwards; alſo if the Skin be hard and tight round the Forehead, and the Patient himſelf look like one dead, with a Viſage extreme pale, or black, and plainly corrupted with the Diſtemper.

In this Claſs alſo muſt that Fever be ranged, which, becauſe it is the mildeſt of all, is called the ſlow Fever; namely, that which ariſes from a latent Putrefaction of the Humour impacted in the Viſcera, or the Corruption of the Viſcera themſelves. The Patient hardly ſeems to be ill, or to ſuffer any remarkable Diſorder, yet his Body is not profited by the Aliment which is taken in, but gradually conſumes and liquifies, and becomes ſo very weak, that it can hardly move from one Place to another. The Pulſe is frequent, quick, and unequal, but yet not great. The Urine exhibits ſometimes certain Signs of Putridneſs. This Diſeaſe generally accompanies an ill Habit of Body, and the Chloroſis in Vir-

Virgins, and is of a long Continuance, oftentimes much exceeding the fortieth Day. But it is much more dangerous, when it does not arise from the Obstruction of the Humours, but from a Corruption of the Viscus itself; of the Liver, for Instance, or Lungs, or Brain, or Spleen, and sometimes of the Kidney, or any other internal Part. Then, besides those Things which I have already noted, these likewise happen: The Distemper is a long Time a contracting, and increases very gradually, for the most Part following other Diseases; it is not relieved by any Method of Cure, and especially by evacuating Remedies, but is even sometimes exasperated thereby. It easily brings on a Syncope, and gradually weakens and wastes the Body, even sometimes without any Sense of this Disorder. This is indeed that very Kind of Fever which is observed in Persons who are tabid.

I SHALL now consider those Fevers, which allow the Patient some Respite and Intermission. Of these one is Tertian, another Quartan, and another Quotidian.

THE Tertian manifests itself in this Manner: In the Beginning, and thro' the whole Course of the Distemper, when the Fit comes on, a Rigor attacks the Body, pricking, and as it were, wounding it every third Day; tho' sometimes the Patient only grows cold, in which Case the Distemper is less violent; towards the End of the Rigor, a bilious Vomiting, or else a loose Stool ensues. Then the whole

Body

Body begins to be on Fire, and the Patient grows thirſty, uncovers his Body, and tumbles and toſſes about thro' the Violence of the Heat. He is likewiſe ſeized with a Difficulty of Breathing, a Pain in his Head, and ſometimes alſo a Delirium. The Pulſe, when the Fit firſt comes on, is contracted and ſmall; afterwards vehement, ſtrong, and quick, yet by no Means unequal, unleſs this ſhould now and then happen by Chance. The Urine is thin, yellow, or of a flame Colour, and an ill Scent. The Paroxyſm is terminated by the Eruption of a profuſe Sweat, and that generally in the Space of ſeven Hours. But it may not be amiſs in this Place to lay down ſome Marks of Diſtinction, by which this Fever ſeems to differ from the other Intermittents. Therefore, when an ardent or continual Fever is begun, the Hand being laid upon the Body, perceives the Heat to increaſe more and more; which it does not in a Tertian, for in this the Heat is equal, and it even ſometimes grows milder under the Hand. Beſides, a Tertian Intermittent, at every Paroxyſm, exhibits firſt a Rigor, and then a Sweat, both which are wanting in a continued Fever, unleſs when it is ſolved by the Criſis. Add to this, that in a Tertian Intermittent, the Rigor both begins violently and ſoon ceaſes, being greateſt at the firſt Fit, and growing continually milder in the ſubſequent ones; the contrary of which happens in a Quartan, as ſhall be hereafter ſhewn.

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The Return of the Paroxyſms alſo contributes much towards conſtituting the Kind of the Fever. I ſhall therefore go on, as I began, to treat of the Tertian, which is generally ſafe and of no long Continuance. When it is genuine, it goes off at the End of fourteen Days. And it is for the moſt Part ſo in Youth, whoſe Nature is hot and dry, eſpecially if they have been uſed to bear much Watching, Labour, Care, and other Troubles, in the Height of Summer, and a warm Climate. When theſe are wanting, then it becomes a baſtard Tertian, which is longer, and has not thoſe violent Heats, nor throws forth ſuch profuſe Sweats, as the genuine. In the Baſtard one, there is no certain Order in the Acceſs and Continuance of the Paroxyſms; the Rigor is indeed leſs vehement, but continues longer, and does not attack the whole Body equally: Every Paroxyſm holds much longer than fourteen Hours. The Diſeaſe itſelf is never ſolved with the ſeventh Paroxyſm, rarely with the fourteenth, but often continues much longer.

A QUARTAN Fever is thus known: In the firſt Paroxyſms, a Shivering ſeizes the Patient every fourth Day, ſuch as generally ariſes from extreme Cold. This Horror after ſome Time, increaſes every Day gradually, till it turns into a vehement Rigor; when the Body trembles and ſhakes, the Teeth gnaſh, and the Bones ſeem as bruiſed and ſhatter'd by a great Weight. When the Rigor goes off, a Vomiting generally enſues;

ſues; after that a Heat ariſes, mixed with ſome Senſe of Coldneſs within the Bones: The Pulſe, at the Invaſion of the Paroxyſm, is languid, rare, and ſlow; afterwards it becomes ſtrong, great, frequent, quick, and more unequal than in other Fevers. The Urine, tho' it is often uncertain and deceitful in this Diſtemper, is yet on the firſt Days thin, white, watry; on the latter it varies. The Heat, Drought, Pain of the Head, and Watching, are leſs troubleſome than in a Tertian, but more than in a Quotidian. The Paroxyſm is likewiſe longer in this than in both the others, and goes off with a profuſe Sweat; wherefore, a perfect Intermiſſion of the Fever ſucceeds. This Illneſs is indeed of long Continuance, but then it is pretty ſafe. Sometimes, it both defends and frees the Body from violent Diſorders. For thoſe who labour under it, are neither affected with Madneſs, or Melancholy, with Leproſy, or Spaſms ariſing from a Plethora. Beſides, theſe Ails, if they before exiſted, generally ceaſe at the Acceſs of a Quartan. I find ſome are of Opinion, that no Perſon can die of a Quartan, unleſs by the Fault of the Patient or Phyſician. It muſt yet be obſerved, that this Diſtemper ſeldom goes off without ſome Injury occaſioned to the Viſcera. It is likewiſe ſeldom to be found without an Obſtruction, Pain, or Hardneſs of the Spleen. Wherefore, that Quartan is particularly ſafe which attacks a Man with a ſound Spleen. It is terminated within

within the Year, unleſs there be any Miſmanagement. Very often it ceaſes after the ſixth Month, and ſometimes after the third. And it has been very often obſerved, that a Quartan, which has been rightly treated during the Autumn and the Winter, is ſolved on the enſuing Spring. This Diſeaſe, if it be attended with a tumid Spleen, or become inveterate, expoſes the Body to a Dropſy, and the Patient, in theſe Circumſtances, is generally loſt. The Quartan generally rages in the Autumn, and the more ſo, if the Spleen be tumified, or there have been any continued or uncertain Fevers which were not entirely carried off; or if the Body be dry and cold, inclining towards old Age, and the Perſon be uſed to groſs Aliment, and oppreſſed with Cares and Anxiety.

THAT Quartan which comes in the Summer, is ſhorter. The Autumnal one is much longer, eſpecially if Winter be at Hand. Oftentimes Crudities convert a Quartan into a Quotidian, with great Appearance of Danger. Some Perſons have likewiſe found by Experience, that the Falling Sickneſs has been removed by a long Quartan. A Quartan, after any one has been cured of it, eaſily returns, if on that Day the Fever uſed to come, the Patient ſhould be ſeized either with Cold, Heat, Crudity, or Laſſitude.

THE Quotidian comes next to be conſidered. A ſlight Cold ariſes in the extreme Parts, the Senſe of which (as in other Intermittents)

termittents) generally begins firſt at the Ends of the Fingers and Toes, and likewiſe at the Noſe. If any Vomiting happen, it is phlegmatick. After that, the Heat ariſes gradually and ſlowly, and in the Height of the Paroxyſm becomes ſharp and violent, and is always unequally perceived, exhibiting ſometimes a Senſe of Cold joined along with it. To this accedes an inſuperable Neceſſity of Sleeping, without any Drought, Sweat, or Intermiſſion of the Fever on the firſt Days. At the Beginning of the Paroxyſm, ſome Perſons are either attended with a Faintneſs, or (what is worſe) with a Syncope; the Pulſe is likewiſe irregular, and more unequal than in other Fevers, as alſo ſlow, ſmall, and weak. It can hardly be enlarged by the Increaſe of the Paroxyſm, altho' at length it begins to be quick, but leſs ſo than in other Fevers, except a Quartan, wherein it is the ſame. The Ventricle is continually in Pain, and the Stools liquid, crude, and pituitous. The Urine in the Beginning is either white and thin, or thick and turbulent; afterwards it becomes red, thick, and turbid, and the whole Body grows dull and indolent: The Paroxyſm is for the moſt Part terminated after eight Hours by a ſmall Sweat, and the Diſtemper itſelf in four and ſixty Days. This Kind of Fever is very rare; and it is more proper, when any one is attacked every Day by a Fever, to conſider it as a double Tertian than a Quotidian. A Quotidian, for the

the moſt Part ſeizes Phlegmatick Perſons, who eat and Sleep much, and live lazily; as alſo, if the Perſon be an old Man, or a Youth, or a Woman: If it be Winter, and the Weather cloudy: If Phlegm oftentimes diſtils from the Head into the Ventricle: Laſtly, if when the Fever firſt attacks the Perſon, the Præcordia are tumid or inflated; if the Paroxyſm begins towards Evening; if before, and in the Fever, the Face appears tumid and livid, the Stomach has been long weak, with a Loathing of Food and frequent Belching. All Quotidians yield with great Difficulty to Remedies, and are very tedious and dangerous.

THAT is ſafeſt which at the Begining of the Paroxyſm throws up Phlegm by Vomit, going off in a profuſe Sweat, and then perfectly intermits.

THESE Things being premiſed, it may not be amiſs to obſerve the mutual Interchanges among Fevers themſelves. It muſt therefore be noted, that a double Quotidian is extreme rare, but that a double Tertian is frequent, and begins generally by a ſingle one. And that the one uſually ceaſes while the other remains; the Paroxyſms come on daily but not at the ſame Hours, and thoſe which come on the even Days are ſimilar to one another, and diſſimilar to thoſe which happen on the odd ones. Equally frequent is the double, as likewiſe the triple Quartan;

both of 'em arise from the single one, and seldom have the Paroxysm alike.

That Kind of compound Fever, likewise deserves particular Regard, which we call Semitertian, and the *Greeks* ἡμιτριταῖος. It begins with a Horror, and declines with a Sweat, but then does not suffer the Body to be entirely free from the Fever. But since it is compounded of an intermitting Tertian, and a continued Quotidian, being one Day severer, it occasions a Horror, and sometimes a Sort of Rigor; as likewise, either bilious Vomitings or Stools; add to this a great Heat and Dampness over the Body; but on the other Day, there is a rather a Coldness than a Horror, and neither the Thirst nor Heat are very troublesome. The Pulse is smaller, and the Fever in general, milder. Besides, on one Day, the Fever seems to be of two Kinds, on the other, only of one. The Semitertian rarely attacks any one, but when it does, it threatens a great deal of Danger. And it is genuine, when the Matter of the intermittent Tertian, and the continued Quotidian consists of equal Portions. When it does not, it cannot then be a true Semitertian; but is generally thought to be the more easily cured.

But since I have laid down those Observations which are peculiar to the several Kinds of Fever, I come now to those which are common to all, or at least, the greatest Part of them. And these are such Things as

as either terrify, or comfort the afflicted. Wherefore, it is better that a Fever come upon a Distension of the Nerves, than a Distension of the Nerves upon a Fever. Likewise, if the Body be but little emaciated considering the Length and Violence of the Fever, or if on the other Hand it be unreasonably or immoderately extenuated, it is a bad Sign: For that denotes a very long Illness, and this Weakness. If in an acute Fever, the Head is pained violently, and of a sudden, and the Præcordia are as it were revelled, it portends some Danger of a Delirium, unless there be a Flux of Blood from the Nose.

It is likewise fatal, if in the same Distemper the Ears grow deaf, unless it also be removed by a *Diarrhœa*, or a *Hæmorrhage* at the Nose. Cold Sweats in an acute Fever are the Harbingers of Death, in a milder one, of a lingring Illness. When the Teeth are covered over with a foul Sordes, they likewise testify a violent Fever. In Fevers, an offensive Breath is bad, as also a Fright upon coming out of a Sleep, or a Distension of the Nerves. The Signs of a bad Distemper are, a *Coma*, Watchings, Dimness of the Eyes, Singultus, Lassitude, Sweating, especially, if succeeded by a new Heat, Inquietude on the critical Days, as also growing cold after a Rigor without any Sweat or critical Evacuation, or a small Sweat following a Rigor. Small Quantities of Blood distilling from the Nostrils, and Discharges of

black Choler either upwards or downwards in the Beginning of a Fever are bad. The Countenance must likewise be viewed, which, if it be too sullen in an acute Fever, or less disfigured than it ought to be, considering the Violence of the Distemper, or well-conditioned beyond Expectation, it is not safe. A Vomiting of pure Phlegm or Bile is thought to be bad, especially, if the Humour be either green or black.

The Belly is likewise hurtful, if it be wholly suppressed, and on the other Hand, if it be so loose, as not to suffer the Patient to rest in his Bed, especially, if the Stools be very liquid, white, pale, or frothy. If the Stools be small, tenacious, light, white, or if they be livid, bilious, bloody, fat, or of an unusual ill Scent, they are thought to be bad. Of the same Sort are various Stools, that is, such as are viscous, bloody, or mixed with green Bile, or such as are pure, after a long Illness. If Worms are voided in Fevers, it is not safe, especially before the Declension of the Disease. But in acute Fevers, it is not so dangerous, if they are ejected alive, particularly, if the Patient is inclining to a Recovery; but if they be dead, it is bad, and that in the Decline of the Distemper. However, in the Beginning of Fevers, it is better that they should be dead; for being alive, they occasion some Suspicion of Pestilence. Urine that is thin and white, is bad in Fevers, especially, such as are acute, as

preſaging Danger of a Delirium. Equally bad is that, wherein the Sediment is either reddiſh or livid; or there be any Reſemblance of ſlender Filaments or *Furfura*. It is likewiſe no good Sign, if after an Appetite, or long Fevers, the Food begins to be loathed, or there be any great Sweat, particularly if it be cold, or that it is not thrown out upon the whole Body equally, but about the Head and Neck. Add to this, if the Fever be not ended with the Sweats, or if after them the Patient be ſeized with a Horror.

LASTLY, if the Fever be ſucceeded by a Jaundice, eſpecially, if the Hypochondria be hard. It is equally to be dreaded if the Patient breathe quick, or if on the ſixth Day he be ſeized with a Horror, or does not bear his Diſtemper eaſily, or grows weak unexpectedly without any Evacuation of the Veſſels, and to ſweat during the Continuance of the Fever, or to be ſometimes hot, and ſometimes cold, or if he often changes his Complexion. At this Time alſo, if there be an Abſceſs in any Part of the Body which does not ripen or admit of any Cure, or if with all theſe the Patient lies upon his Back with his Hands and Feet ſpread abroad, does not ſleep all the Night, tho' he may get ſome in the Day-time; and it is ſtill worſe not to be able to obtain any Reſt either by Night or by Day, but to be tormented with a continued and inſuperable Watching, or if on the other Hand, he be oppreſſed with Sleep.

And theſe are the Signs which may terrify us with the Apprehenſion of a dangerous Fever. But it may be concluded that the Fever will be of long Continuance, when the Hypochondria are tumid, eſpecially, if they be hard, painful, inflamed, and tight. For this portends not only a long Illneſs, but that it may likewiſe prove dangerous. The Fever likewiſe will laſt long, when Tubercles or Pains fall upon the Joints; when the Groin and Glands grow painful; when a cold Sweat ariſes, without any great Violence of the Fever, only about the Head and Neck; or when there is any other Kind of Sweat which neither alleviates nor terminates the Fever. When an Abſceſs which may ariſe cannot be cured. When the Urine is different at different Times. When the Body is variouſly affected, one while with Heat, another with Cold, one while with one Colour, otherwhiles with another. When it is likewiſe but little emaciated in Proportion to the Length of the Diſtemper. When for a long Time the latter Paroxyſms begin at the ſame Hour as the former, and are equally violent and laſting. And by theſe Signs may we know a lingring Fever, which if it has now dragged on for ſome conſiderable Time ſecurely, without taking away the Life of the Patient, we muſt expect an Abſceſs, and that it will fall upon one of the Joints, particularly the lower ones, attended with a Tumour and Pain. However, this uſually happens only

only to younger Perſons, and in Fevers which do not intermit, and which have exceeded the twentieth Day. But in older Perſons, and who labour under an intermittent and uncertain Fever, no Abſceſs but a Quartan generally ſucceeds; and that if Autumn be near. For as an Abſceſs uſually happens to Perſons under thirty Years of Age, ſo a Quartan generally ſeizes ſuch as have exceeded that Term. It muſt likewiſe be noted, that an Abſceſs more commonly happens in Winter, and that then it continues longer, and is more difficultly removed. Hitherto we have ſhewn thoſe Signs, by which either the Danger or the long Continuance of a Fever are ſignified. We muſt therefore next deſcribe thoſe which promiſe the Patient's Safety. Wherefore, we may reaſonably expect this Safety, if a Jaundice comes on, either on the ſeventh, ninth, eleventh, or fourteenth Day of the Fever, the Hypochondria being ſoft; if the Patient eaſily bears the Diſtemper, and is afflicted with no violent Symptoms; if he enjoys his Reaſon; if he is not oppreſſed with too much Sleep, or Watchfulneſs, Sleeping by Night, and Waking by Day; if after his Sleep he grows ſtronger; if he has no Difficulty of Breathing; which Sign obtains the firſt Place among the good ones, in all Fevers which terminate within forty Days: If, laſtly, his Appetite continues either being preſerved from the Beginning, or recovered after a

Loathing of Food. If the Hypochondria both right and left, are equally ſoft, without any Senſe of Pain. If at this Time a Vomiting enſues, if mixed with Bile and Phlegm: If in the Urine, that which ſubſides, or is ſuſpended in the Middle, or ſwims a-top, is white, light, and equal: And it would be better to have Nubeculæ at the Bottom of the Pot. Farther, if the Stools be ſoft, well-figured, yellowiſh, of no ill Scent, their Quantity anſwering to the Meaſure of the Food taken in, and the Diſcharge made much about the ſame Time as it uſed to be in Health. If the whole Body be equally ſoft and hot, and ſweat all over alike. If by ſweating the Fever is abated: If the Patient is eaſily turned, if lying down be natural to him: If the Diſcharges from the Body are made without any Uneaſineſs, and after Concoction. If after the ſame Concoction, the Lips, Noſe, and Extremity of the Tongue are ſlightly chapped, and exulcerated with ſmall Puſtules; if, laſtly, the Concoction begins ſoon to be made with a conſtant good Pulſe.

THE Periods of Fevers are likewiſe thus diſtinguiſhed, by the Meaſure of the Paroxyſms. When ſeveral Paroxyſms of equal Violence and equal Duration, return at the ſame Hour, we may know that the Beginning of the Fever is not yet paſſed. But if any ſubſequent Paroxyſm come on before the uſual Times of the former, and continue longer

longer, and with more Violence, the Increaſe of the Fever is begun. But the ſtationary Period is generally when the Paroxyſm is moſt vehement, and neither comes on before or after the Time of the former; but all Things continue much the ſame upon the whole, for two Revolutions. But as often as I here ſay that the Paroxyſm is retarded or precipitated, I mean that it is more ſo than the Proportion of the feveriſh Circuit requires. For thoſe Motions which are not thus made, for the moſt Part follow the Nature of the Fever, and do not determine the Periods: Which often happens in a tertian, quotidian, and quartan Fever, which always anticipate, till they are entirely ſolved. But, if the Paroxyſm is retarded, and becomes milder and ſhorter than the former, it is plain that the Fever begins then to decline. According to the Matter from whence the Fever ariſes, the Periods are taken, as likewiſe from thoſe Accidents which happen preternaturally in a Fever, by the *Greeks* called Συμπτώματα. Thus the Crudity of the Matter conſtitutes the Beginning of the Fever, the Increment comes on when the Concoction begins, and the State when it is finiſhed; the Declenſion attends either the Evacuation or Tranſlation of the concocted Matter. The Symptoms which we have juſt now mentioned, are all milder in the Beginning and Declenſion of Fevers, and more ſevere in the Increaſe and State. To what has been

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already remarked we may add: That Fever which goes off without any good Signs, on a Day that is not critical, generally returns, and much more so, if any Error in the Diet has been committed. But this I must not omit, that the Fevers which are most mild and attended with the best Signs, generally cease on the fourth Day, or before; but that the worst Kind, attended with the most grievous Symptoms, kill in the same Space of Time, or before.

THESE Things being thus considered, we shall in the next Place make some Observations concerning the pestilential Fever. When this has not yet invaded any Place, but is apprehended to be near, the following Accidents happen. The Spring and Summer is hot and dry, the Wind southerly, without any fresh Gales, the Weather frequently changes on the same Day, and is one while hot, another while cold, sometimes cloudy, and at other Times serene; however it is oftner cloudy, and very Rain-like, but yet without any Rain. There appear great Swarms of Insects, and abundance of Cattle die. Unusual Fires are seen by Night in the Air, and rising Comets portend this calamitous Evil. When any one is seized with this Disease, these Things ensue. Buboes suddenly arise without any apparent Cause, either behind the Ears, under the Arm-Pits, or more frequently in the Groin, or else Carbuncles on various Parts of the Body, or purple Eruptions.

ruptions. With these a continual and acute Fever invades the Patient, in which the outer Parts of the Body are hardly warm, nay, sometimes affected with a Sense of Cold, while the inner are burnt up with the most violent Heat; the Person himself grows sluggish, anxious, full of uncertain Hopes, and oppressed with an insuperable Necessity of Sleeping. His Countenance becomes fierce and disturbed, and uncertain, like that of Persons in Drink. His Breath smells ill and grows short, his Appetite decays, Mouth grows bitter, and vehement Drought ensues. There is frequently both a Nausea and Vomiting, by which the desired Benefit of the best Food is frustrated: The Pulse is small, languid, quick, frequent, and unequal: The Stools fœtid, and of a very ill Scent: The Urine one while like that of Cattle, turbid, crude, thick and fœtid; another while like that in healthy Persons without any Mark of Disorder. As then this Fever is inflicted upon Mankind from Heaven, simply and not complicated with any putrid one, it is generally attended with very obscure Signs, so that the Patient is neither affected with vehement Heat, Drought, or want of Appetite, and the Urine perfectly well concocted. For the Person, to appearance, no ways ill, is weakened with frequent Swoonings and Vomitings, and at length being seized with a sudden Syncope, is unexpectedly carried off. Farther, as every pestilent Fever is always absolutely

ſolutely deſtructive of itſelf, ſo it then brings ſure and ſudden Death, when the Heat being inwardly oppreſſed, there is no outward Eruption upon the Surface of the Body, either of Bubo, or Carbuncle; or if there be any Eruption, yet neither the Diſtemper nor the Patient are alleviated by it. Beſides, it is equally fatal, if a Bubo or Carbuncle once riſen, ſuddenly ſubſide, and diſappear; as alſo if the Breath being fœtid, and the Extremities of the Body growing cold, a frequent Vomiting and Syncope ſhould enſue. It is proper likewiſe to remark, that the Preſages of Health are ſo very uncertain in this Diſtemper, that ſudden Death oftentimes deceives the Phyſician, tho' full of Hopes and Promiſes, on account of the good Signs.

SINCE a putrid Fever is joined with almoſt all acute and violent Diſtempers, and therefore a Criſis happens, (for chronical Diſeaſes, and ſuch as are without any Fever, and ſmall, are gradually ſolved without any Criſis) I think I ſhall not do amiſs, if to the Obſervations upon Fevers, I ſhould add others likewiſe upon the ſeveral Criſes.

AS the various Changes of the Weather, ſo are the Criſes of Diſtempers foretold by certain Signs, which the *Greeks* call Κρίσιμα. They are theſe, Coma, Vertigo, the Senſes impaired and erroneous, and a remarkable Pain in the Head, Neck, Stomach, Hypocondria, and other Parts; add to theſe a Humming in the Ears, falſe Splendours repreſented

preſented to the Eyes, involuntary Tears, frequent Nauſea, burning Heat, and extreme violent Thirſt, the Pulſe of a ſudden rendred irregular and unequal, a Suppreſſion of the Urine, and unuſual Grumblings of the Guts. Among theſe Diſorders the Patient is entirely uneaſy, and rowls and tumbles about on every Side, roars out aloud, jumps out of Bed, in all Things reſembling a Mad-man. At this Time the feveriſh Paroxyſm is very violent, generally coming one Hour ſooner than the former, attended with great and unuſual Rigor, upon this (if the future Criſis be good) there breaks forth a profuſe Sweat, or a copious Hæmorrhage from the Noſe, or a great Diſcharge of Humours by Vomit or Stool, after which the Fever begins wholly to ceaſe. And there is ſome Appearance of theſe Signs over Night, when the Criſis is to come on the next Day; there is the ſame likewiſe in the Day-time, if the enſuing Night is to put a Period to the Diſtemper. For *Hippocrates* tells us, that we ought to expect the Night to be very reſtleſs, which precedes that Day whereon the Paroxyſm is to be, and the Criſis compleatly finiſhed. It muſt likewiſe be remarked, that the nocturnal Signs are more violent than thoſe in the Day, and that ſome of thoſe very Signs are only to be accounted the Signs of the Criſes, and others both the Signs and Cauſes of them. In this Claſs are comprehended Sweatings, Vomitings, Stools, Urines, and Effuſions of Blood: In that De-

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liria, Watchings, Coma, Tears, and the like. It is the Property of both these Kinds of Signs, either to promise a Recovery after there have been any Marks of a Concoction, or to threaten Destruction, in case the Crudity shall subsist. Wherefore they cannot be esteemed good till the Distemper is at the Height, or very near it. Inasmuch as at that Time the Humours are ripened. Wherefore I find *Hippocrates* was of the Opinion, and not without Reason, that the Celerity of the Crisis is signified by the Concoctions. The very same Signs are at the Beginning of a Distemper absolutely destructive; and in the Increase too, if of a malignant Distemper they threaten Death; but in the Increase of a milder Disease they portend an imperfect Crisis. For Nature, when the Patient is to recover, defers all critical Evacuations till the Matter be perfectly concocted. But if the Patient is like to sink under the Disease, Nature attemps a Crisis much sooner, and exhibits no obscure Signs of it. Whence it is plain that the Signs of Concoction are always good, and the Harbingers of a certain Recovery; but that the Signs of a Crisis are not much to be depended on, and that they have Significations and Effects, as the morbid Matter is crude, or concocted. It is likewise necessary that the Physician's Judgment be well instructed, in what Way, and by what Kind of Evacuation the Crisis of the Fever will be brought about. Therefore if the Fever

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be acute, and the Crisis, on Account of a speedy Concoction, be made in the first Revolution, we must rather expect some Secretion or other than an Abscess. In the first Place then, if there is to be any future Evacuation, there generally happens a Flux of Blood from the Nostrils, if the Hypocondria either right or left, be distended without any Pain, and if there be at the same Time a Difficulty of Breathing, the Head grow hot, affected with a throbbing and tensive Pain, and the whole Face, especially the Eyes, Nose, and Cheeks grow red: If the Sight become dim, and eluded with certain splendid Objects: If the Neck be painful, and the Ears either tinkle or grow deaf: If the Eyes water and grow red of a sudden: If the temporal Arteries are violently agitated: If the Nostrils are as it were extenuated and itch: Especially if at this Time there be a violent Pain about the Face and Temples; add to this, if the Pulse, besides it being high and vehement, as it is in all Evacuations, be undulating in this Case likewise. This Evacuation is common in ardent Fevers, and that Kind of Madness which the *Greeks* call Φρενῖτις; as also in acute and continued Pains of the Head, and that without a Fever, especially if they have fixed themselves about the Forehead and Temples; as also in all hot and acute Inflammations about the Precordia, especially on the Liver and Spleen. Of which the Event will be more certain, if it be Summer-

mer-time, and the Patient in the Flower of his Age, not having yet passed the five and thirtieth Year of his Age. But as this Profusion of Blood from the Nose is familiar to every acute Fever, and to that Kind of Madness which I just now mentioned; so by no Means is it to a Lethargy, or the Inflammation of the Lungs, which the *Greeks* call Περιπνευμονία. Between these Distempers, that Inflammation of the Side, which the *Greeks* call Πλευρῖτις, may be considered as a Medium, being less subject to a Hæmorrhage than the former, but more than the latter.

FARTHER, a Vomiting must be expected, if with a heavy and vertiginous Head and Dimness of the Eyes, the Stomach be affected with a gnawing Pain, and frequent Nausea, and this be attended with a bitter Mouth, and a great Discharge of thin Saliva, and a Tremor of the under Lip. At this Time likewise the Hypocondria being as it were suspended protrude forwards, and compress the Breath, and the Pulse is contracted and hard. But the Vomiting will be more certain, if there be a tertian Fever, and the Patient has passed his five and thirtieth Year; if it be Summer; if there be any Rigor; as also if the Parts below the Præcordia grow cold. But now a Flux of the Belly will ensue, if the Humour be moved downwards, without any Vomiting, or a plentiful Discharge of Urine; especially if the Stools are more bilious and loose than they were before the Crisis: If, lastly, the Patient

Patient ſeldom voided any Blood at the Noſe when he was in Health, or ſeldom ſweat, and was often troubled with a Looſeneſs, and accuſtomed to drink Water. When the Looſeneſs is near, there is a Fluctuation, Grumbling, and Pricking in the Belly; after that a Weight and Pain ariſe inwardly, firſt about the Loins, and fall from thence into the lower Part of the Belly. This was plainly obſerved by *Hippocrates*, who ſays, that in Fevers attended with a murmuring Pain of the Hypocondria, if a Pain on the Loins ſupervenes, the Stools are for the moſt Part looſe. Farther, a Sweat breaks forth, if the Stools and Urine are ſuppreſſed when the Strength is firm, eſpecially, if no Sign of Vomiting has at this Time preceded; but if there ſhould be any ſuch, then the Criſis will be performed by Vomiting and Sweat. But the Sweat will be more certain, if, with the former Signs, the increaſing Paroxyſm (as happens in ardent Fevers, and the like violent Diſtempers) ſhould bring on a Delirium, and if the Surface of the Body grow more hot and red, and emit a Kind of hot Vapour, which was not before. The Pulſe likewiſe becomes undulating and remarkably ſoft, and the Urine thicker, and entirely bilious. More confirmed likewiſe will be the Prediction of Sweat, if the Patient juſt before the Criſis, ſhould dream that he was in a Bath; which I remember happened to myſelf in an acute Fever when

the Sweat was ready to break forth. Sweat is familiar to all, but especially acute burning Fevers. That Madness likewise, which the *Greeks* call φρενῖτις, requires Sweatings, if they be good. And we may know that they are good, when they flow copiously and hot from the Head, the rest of the Body being at the same Time in a Sweat. Sweats (if they be good) are also esteemed profitable in all acute Inflammations under the Præcordia. Lastly, Whether the Crisis will be brought about by the breaking forth of the Hæmorrhoids or Menses, may be known from the proper Signs of each Affection. But the Fever may be solved by the rising of an Abscess; when this is generated, these Circumstances generally attend. A lingring Distemper is not gradually solved, but the Fever and Pain remain in the same Tenor, yet so that other salutary Signs appear, and there is no Doubt of the Patient's Life. Add to this, that there has been no evident Evacuation; that the Concoctions are retarded; that there be a sudden Pain, Lassitude, Debility, and Sweat of some inconsiderable Part of the Body; that the Distemper itself which is not deadly, be slowly moved, and has already passed the twentieth Day; and that the Pulse be good, and the Strength not infirm. Besides these, the Abscess will be more certain, if the Urine be voided for a long Time crude and thin. But in this Case, a copious, thick, and white Urine, with a very large Sediment, removes

removes all Fear of an Abſceſs. For then, the Diſorder is gradually ſolved by a Concoction, and at Length goes off without any manifeſt Evacuation, or Abſceſs. If any Abſceſs is upon breaking out near the Ear, by the *Greeks*, called Παρῶτις, it may be known by theſe Signs: The Breathing grows difficult of a ſudden, but does not long continue ſo; upon this, enſue a Heavineſs and Pain of the Head, and a great Drowſineſs and Deafneſs.

THIS Caſe is frequent in Fevers which are acute, and not very long, and ſometimes alſo terminates both a Lethargy, and that Kind of Madneſs, which the *Greeks* call Φρενῖτις, and the like Diſorders of the Head. But when a Diſtemper runs out to a great Length, and from proper Tokens an Abſceſs is expected, and the Signs of a Parotis are wanting, which then indeed hardly ever happens: But that there is ſome Pain, Heavineſs, Tenſion, or Heat in the lower Parts of the Body, we may then know that an Abſceſs is forming in theſe Parts near ſome Joint. It will not be amiſs to repeat in this Place what I have before obſerved, that we muſt begin to expect an Abſceſs, when the Fever has exceeded the twentieth Day; and that it generally happens moſt in the Winter, goes off ſlowly, and is leſs liable to return: Add to this, that it is more frequent among young Perſons who are not arrived to their thirtieth Year, and that it ſel-

dom happens to elderly Perſons, be the Fever ever ſo long; but that theſe are rather threatned in this Caſe with a Quartan, eſpecially, if the Fever which attends them be not continual, but intermits with vague and uncertain Revolutions, and has dragged on a long Time even to the autumnal Seaſon. It is likewiſe rightly obſerved, that a Fever, tho' of long Continuance, that begins with a Rigor, and is ſolved with a Sweat, for Inſtance, a Tertian, or a Quartan, ſeldom ends in an Abſceſs. For the morbid Matter is purged off every Paroxyſm: Add to this, that all Abſceſſes in the lower Parts of the Body, which follow a ſlow lingring Fever, are ſafer, than that which breaks forth on the upper Part of the Body behind the Ears. For this is for the moſt Part peculiar to very acute Diſeaſes. But if, when an Abſceſs ariſes, any Fever ſhould remain, and it is not reſolved outwardly, we muſt note, that it will not be ſuppurated before the twentieth Day, but that it will be wholly ſo between that and the ſixtieth. But if it ſhould happen, that before the Abſceſs ſuppurates, the Fever ſtill continuing, it ſhould ſubſide, it will then endanger Ravings and Death, eſpecially, if it be behind the Ears. That Abſceſs ought to be conſidered as the ſafeſt; which ſeizing the lower Part of the Body, is fixed a long Way from the Diſtemper, and the vital Parts; and which being included in a large Place, contains all the morbid Matter; and which

which emerging chiefly outwards breaks forth with Eaſe: For this, by no Means, ſuffers the former Diſeaſe to return. That is likewiſe good which is acute and pointed, ripens equally, bends downwards, is not hard, and has but one Point. That is worſt which tends inwardly, ſo that the outward Skin be not coloured thereby. But if the Abſceſs be prominent, we muſt obſerve, that is the worſt which is largeſt and flatteſt. The Affections of the Mind likewiſe contribute ſomething to the Manner of the Criſis. For Fear haſtens either Stools, Vomit, or Urine. On the contrary, Joy rather throws forth the Sweat. It alſo ſeems worthy Obſervation, that the Criſis is uſually perfected by ſeveral Evacuations, and not always by a ſingle one; as if it begin, in an ardent Fever, by a Hæmorrhage at the Noſe, it is afterwards compleated and finiſhed by the breaking forth of the Sweat.

FARTHER, the Criſis ought to be perfect, genuine, certain, ſafe, and evident; as alſo, indicated by the proper Day, good and ſalutary. This muſt be accompanied with Concoctions, an efficacious critical Day, and ſome Kind of evident Excretion ſuited to the Diſtemper. Immediately precedes an unequal Motion of the Pulſe: In which there are more great Strokes than ſmall: More quick than ſlow: More moderate than frequent: More vehement than languid, with equal, moderate, or quick Pulſations. And

then follow a better Countenance, freer Breathing, and greater Force in turning and raiſing the Body, and a Return of the Pulſe to a juſt Mediocrity, Equality, and Tenor. The Nature of the Diſeaſe likewiſe gives us Hopes of a good Criſis, which is very often and eaſily terminated by it; of which Kind are the ardent Fever, Tertian, and the like.

BUT whether there will be any Criſis in Fevers or not, may be thus determined. If the Diſtemper is violent, and it be much and conſtantly moved by anticipating and increaſing Paroxyſms; if with this, Nature is ſtrong, and the morbid Matter ſoon concocted: If laſtly, the Age and Nature of the Patient, the Seaſon of the Year, and the Kind of the Diſtemper ſuit a future Criſis: We may then know that there will be a great Change in the Diſtemper, and that ſo much the ſooner, the more powerful thoſe are. But if in an infirm Body there be a violent and malignant Diſtemper, and the Matter of it continue a long Time crude, then Nature being oppreſſed, Death muſt inevitably enſue without any Criſis at all. But it generally happens, that where there are any Signs of a Criſis, there muſt neceſſarily be one, either good or bad. Thoſe Signs, I mean, which appear at the Beginning of the Criſis, or a little before it, and not all thoſe which ſucceed the Diſtemper. But if it ſhould happen, that when the Signs of a Criſis exiſt, the Criſis does not immediately follow, we may

may then know, that this will be either very difficult, or that the Patient will die.

But for the most Part, the Prognosticks of a good Crisis are pretty certain, those of a bad not so, and that both, in acute Diseases, are always doubtful. Besides, we may safely trust to the good Signs, when the Disease is at the Height, but not to the bad ones, unless the Body wants Strength. No one ever escaped in an acute Disease without a Crisis; many have died suddenly without it. And as the Crisis is not salutary but at the Height of the Distemper, so Death may happen both at the Beginning, Increase, and State of the Disease. But the Declension of any Illness never produced either Destruction or Crisis in any one; because, that Disease, which has passed its Height, continues without any Crisis, and is gradually solved, unless there be any Mismanagement. Sometimes Persons die at the Beginning of a febrile Paroxysm, occasioned by fatal Inflammations of the inner Parts; and in Fevers arising from much Phlegm, the native Heat being inwardly suffocated and oppressed: And then the Patient being seized with a cold Fit, does not grow hot again; the Pulse vermiculates, or else wholly fails, and the Patient oppressed with a profound Sleep, dies. Sometimes (tho' but rarely) Death happens in the Increase of the Paroxysm; most frequently while this is in its State: For Nature being overcome by the Violence of the Distemper, the Patient grows deli-

rious and boisterous, throws himself about with great Force, and is burnt up with excessive Heat; being at Length overcome by these grievous Disorders, and a Faintness and Syncope coming on, the Person is lost. Seldom any one dies at the going off of a febrile Paroxysm; yet, when this happens, the Spirits sink, the whole native Heat expiring together with that of the Fever, and the Patient falling into a small clammy Sweat, immediately expires. It is perpetually true, that the Patient usually dies at that Time of the Paroxysm, which is the most Difficult of all.

I THINK, I have now finished my Observations concerning the Crisis, unless something remains to be said about those Days which have a Power of terminating Fevers by it. Whence they were called by *Hippocrates* (who was the first Author of 'em) Κριτιμοί. These then are the following; the third and fifth, seventh and ninth, eleventh and fourteenth, seventeenth and twentieth. These twenty Days make up just three Weeks: So that the eighth Day is the Beginning of the second Week, and the fourteenth, according to *Hippocrates*, must be reckoned the End of the second, and Beginning of the third. Now these septenary Days are divided into *Quaternios*, or a Term of four Days; and the fourth Day is the last of the first *Quaternio*, and the first of the second. The third *Quaternio* beginning on the seventh Day,

Day, ends on the eleventh; the fourth beginning here, ends on the fourteenth Day; this Day begins the fifth *Quaternio*, and the seventeenth ends it; from this, the sixth *Quaternio* begins, and ends on the twentieth; whence it appears, that the twentieth Day is the last of the sixth Quaternary, and the third Septenary. Farther, there is the same Proportion between the critical Days in the second Vicenary, that is, from the twentieth to the fortieth, as was in the first. But after the fortieth Day is past, as Distempers are no longer acute, so the Crisis is no longer compleated on odd Days, whether Septenary or Quaternary, but entirely on even ones, as every twentieth, namely, the sixtieth, eightieth, hundredth, and so forwards. It must likewise be observed, that all critical Days have not the same Power. For the Septenaries are the most efficacious of all; after these, the Quaternaries, which are in each of their Septenaries; then those which are between both, by the Physicians named intercurrent Days. Of the critical Days these are good: The seventh, fourteenth, ninth, eleventh, twentieth, seventeenth, fifth, fourth, and third. But the bad, the unsafe, and the least critical, are the sixth, eighth, tenth, twelfth, sixteenth, and nineteenth. Some will have the thirteenth to be doubtful, and between the good and bad. And tho' not with equal Efficacy, yet all odd Days may give a critical Turn to an acute Disease; those, I

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mean, which are contained in the first Vicenary; becauſe in that Space of Time, the Diſtemper is more violently moved: Afterwards it remits and grows much milder. Whence it is, that in the ſecond Vicenary, hardly any Days beſides the Septenaries, as the twenty ſeventh, thirty fourth, and fortieth, can prove in any Degree critical. Farther, among the judicatory Days, ſome are Indices to the other, which are therefore termed *contemplatory* by *Hippocrates*, becauſe theſe foretel by certain Signs what will happen on the next judicial Days, Therefore, this Author obſerves, that the fourth is the Index to the ſeventh; as likewiſe the eleventh to the fourteenth, and the ſeventeenth to the twentieth. Wherefore, if the Fever be immediately acute on the firſt Day without any Suſpicion of Danger, and there be evident Signs of Concoction in the Urine, the Criſis cannot be delayed beyond the fourth Day. As on the other Hand, if there immediately concur on the firſt Day, ſeveral probable Signs of Deſtruction, the Patient dies within the fourth. For *Hippocrates* rightly judged, that if any Perſons were to periſh ſoon, the moſt violent Symptoms ought to happen to 'em at the Beginning. Likewiſe, if the Criſis is to be on the ſeventh Day, the Urine exhibits a red Cloud on the fourth, and the other Signs follow proportionably good; unleſs the Criſis be retarded by any Error, either of the Patient or Phyſician,

ſician, and it ſhould fall either on the ninth or the eleventh. For becauſe of the Error, in thoſe Diſeaſes wherein there is no Danger, the Criſis is retarded; in ſuch as are fatal, it anticipates the ſtated Day. Add to this, that, if there be no critical Evacuation on the eleventh Day, the Criſis cannot be made before the twentieth; but if the Symptoms happen to be be pretty moderate till the ſeventh, it may. But thoſe Diſtempers, wherein the Matter continues entirely crude till the fourteenth, and are very ſlowly moved, they will not be critically ſolved till the fortieth. For, as the judicial Days are the more efficacious, ſo likewiſe are their Indices. It may likewiſe be noted, that the Impetus of Diſtempers is violent to the fourteenth Day, but leſs ſo from the fourteenth to the twentieth; and that the Diſeaſes which continue from this Day to the fortieth, abate their Violence gradually; and that thoſe which have exceeded the fortieth, grow entirely languid, and are ſolved rather by a long Concoction, or an Abſceſs, than by a Criſis. Laſtly, *Hippocrates* tells us that after the hundredth Day ſome Diſtempers ceaſe at the End of ſeven Months; others after ſo many Years; and others again, as is very probable, after two or three Weeks of Years.

AFTER the Fevers which are generated from a Pravity of the Humours, we muſt conſider thoſe which were called by the *Greeks*,

Greeks, Ἕξιναι. Theſe are attended with a very dry, ſqualid, continued Heat, and conſtantly equal, without any Pain, ſo that the Patient indeed imagines he is not in a Fever. Though the Heat generally increaſes in ſome Meaſure an Hour or two after eating any Meat, which being concocted, the Fever returns to its former Equality: When the Hand is firſt laid upon the Body, the Heat ſeems to be obſcure; but upon holding it there for ſome conſiderable Time, it grows violent and ſmart. The Pulſe is weak, ſmall, and frequent, but after Meals it becomes higher and greater. There is likewiſe more Heat generally in the Arteries (if you touch them) than in the neighbouring Parts. The Skin grows vehemently dry, and the Body weak and languid. And this is eſteemed the firſt Degree of a Hectick, which is eaſier to be cured, than known. The ſecond Degree is, when a greater Dryneſs predominates in the Body, ſo that it begins to be violently liquefied and conſumed.

At this Time, a Fatneſs ſwims upon the Urine, reſembling the Web of a Spider. The Pulſe is hard and tenſive, yet weaker and ſmaller than in the firſt Degree of the Fever. The Skin likewiſe becomes more hard and dry. But of the laſt Stage of this Diſtemper, theſe following are the Signs: The Eyes grow hollow, and the adjacent Bones appear prominent; the Eyes are likewiſe loaded with a dry Sordes, and the Eye-lids difficultly

difficultly moved, and often cloſe, as if the Patient ſlept, yet without any Sleep at all. The Skin on the Forehead is dry and hard, the Temples collapſe; the Countenance loſes its vivid Colour: The Hairs increaſe with a very ſpeedy Growth: The Hypochondria ſeem to be convulſed upwards towards the Thorax, and the Belly wholly contracted and empty, ſo that when it is uncovered, there ſeems to be neither Inteſtine nor Viſcus within it. The Pulſe is extreme hard, as alſo weak and frequent. The Urine fat as if Oil ſwam upon it. The Body itſelf is ſo emaciated, that the Extremities of the Bones appear very prominent and enlarged, eſpecially of the *Scapulæ*. The Skin becomes hard like the Hide of a Beaſt, not ſoft and wrinkley, as it uſually is in thoſe Perſons who are waſted from other Cauſes. In this Diſtemper, the Patient is apt to be much moleſted with Lice. As this Kind of Hectick is very eaſily known, ſo can it never be cured. For this is the greateſt Degree of this Fever (by the *Greeks*, called Μαρασμώδης) and certainly deſtroys thoſe who are afflicted with it. But this Fever is ſeldom ſo ſimple as not to have ſome other Fever joined with it. It often begins with an acute Fever which burns up all the Humours of the Body; and it then becomes that Kind of Fever which is called Colliquative. And it both riſes and deſtroys ſuddenly, effecting that in a ſhort Time, which when ſimple, it does gradually, and

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in a Length of Time. For it moves but ſlowly, and ſlowly arrives at the Height. Wherefore, in the Beginning it is difficultly known, before it riſes to this Pitch of Squalidneſs. And generally thoſe Perſons who are ſeized with a Hectick, are of a hot and dry Nature, and have either endured much Sorrow and Labour, or Hunger and Thirſt. For, from theſe Cauſes, when they are any thing light, an Ephemera ariſes, but when extremely violent, an Hectick.

THE next Diſorder to this, is an Atrophy, in which, ſince the Patient is not nouriſhed by the Aliment he takes, an extreme Leanneſs comes on, and the Body dries up gradually, and without any apparent Cauſe. This Illneſs is very grievous, and ſince it vehemently waſtes the Strength, will at length carry off the Patient, unleſs he be timely relieved. It is generally joined with a hectick Fever, Affections of the Heart, Ulceration of the Lungs, or hot and violent Diſorders of the Ventricle, Liver, or Spleen.

EITHER from this very Diſeaſe, or from a Hectick, the Body eaſily falls into a Maraſmus, and when it ſo happens, there is no poſſible Means of a Cure left.

AND as in this Diſtemper, the Body is not in the leaſt nouriſhed; ſo in another, which the *Greeks* call Καχεξία, and we a bad Habit, it is but ill-nouriſhed. The Body grows tumid, lax, ſoft, heavy, and ſluggiſh, loſing its vivid Colour, and turning to a paliſh green;

green; and becomes so very impotent, that the Legs sometimes tremble in walking. In the Beginning of this Distemper, the Digestion of the Food is vitiated, the Appetite still remaining good, yet, in some Space of Time, this is likewise injured. The Breathing is weak and rare, the Stools various and unequal. These Signs are in a Manner peculiar to that Kind of Cachexy, which is called crude and pituitous, from the predominant Humour, and which very often precedes and forebodes that Kind of Dropsy, which the *Greeks* call Λευκοφλεγματία. With this Distemper, Children and old Men are mostly seized; but young Men, as they more rarely labour under it, so are they more easily cured. But those are more so affected, who are recovering from a long Distemper; especially, if at that Time, any Viscus, particularly, the Liver and Spleen should be seized with a hard Swelling, by the *Greeks* called Σκίρρος. This same Distemper likewise frequently succeeds a long Dysentery, Lientery, Hæmorrhoids and Menses either immoderate or suppressed. Besides this crude one, there is another melancholy Cachexy arising from the Blood's being corrupted, and this generally both precedes, and presages an *Elephantiasis*. The Aliment which is taken in, is vitiated, and from thence the Breath, Mouth, Stools, and Urine, as also the Sweat acquire an ill Scent: The whole Body, and particularly the Face, becomes of a foul and squa-

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lid Colour. In some, the Skin grows rough with continual Pustules, or Ulcers. The whole Body is rendred infirm, with Tubercles rising sometimes upon certain Parts of it.

Of this Kind of Cachexy, I take that Distemper to be, which *Hippocrates* terms *Magni Lienes.* For the *Atra Bilis* becomes sometimes so pestilent by Corruption, that when it is thrown out of the Spleen into the Body, it plainly corrupts the whole Habit of it. This Disorder manifests itself by these Signs. The Mouth and Breath stink, the Gums are vitiated, grow livid, and sometimes blackish, and bleed, if but lightly prest with the Finger: They are likewise so lax, as to separate from the Teeth, so that we may sometimes easily draw them all out. Some Persons are affected with a Pain in the Head, and Hypochondria, as also with a Loss of Appetite. The Distemper increasing, these likewise increase, and certain livid Spots, resembling the Remains of Bruises, break out upon various Parts of the Body; upon the Arms, for Instance, the Thighs and Legs, sometimes the whole Skin is discoloured, as with the black Jaundice. Besides this, there ensues a great Imbecillity, and particularly in the Legs, which become very impotent. In some, and especially younger Persons, there is a frequent Hæmorrhage from the Nose; which, if it does not happen, those Spots, which I have already mentioned, and sometimes

times Ulcers break out on the Legs. This Distemper is frequent among the *Dutch*, and other People, who inhabit low and marshy Places, especially, if their Food be gross and hard. It is very rare in hot and high Countries. It seizes upon People of all Ages, and at any Time of the Year indifferently: However, it is thought to be more severe in old Men, but more common in young ones: In some Places it happens most frequently to Children: It breaks out mostly in the Autumn and Spring.

The Elephantiasis, or Leprosy, is a very grievous and shocking Disorder: As soon as this invades any one, the Surface of the Body is covered with abundance of Spots, and many Tumours, especially, near the Top of the Forehead and Chin: The Spots partake sometimes of a black Colour, sometimes of a yellow, and at others of a white. The Skin becomes unequally thick, contracted, and hard like that of Geese; it likewise grows scaley, more particularly in the Face, Hands, and Feet. The Hairs grow thinner all over the Body, the Breath becomes difficult, and of an ill Scent, the Voice low and hoarse, the Cheeks thick, the Chin dilated, and both exhibit a red Colour, not florid indeed, but more upon the livid: The Urine is thick and turbid like that of Cattle. To these are added, the Behaviour, Sleep, and Dreams, familiar to melancholy People. Some likewise imagining themselves to be choaked in their Sleep, awake, and throw themselves

out of Bed with Violence Moſt of theſe Kind of Patients have a violent Propenſity to Venery. And as the Diſtemper increaſes, theſe Symptoms likewiſe increaſe, and the Body being very foul, grows lean, the Mouth, Legs, and Feet ſwell, and theſe laſt are for the moſt Part cold and benummed. The Veins grow knotty and black, reſembling Warts or Hailſtones, on the Root of the Tongue, under the Eyelids, and behind the Ears. When the Diſtemper grows inveterate, the Cartilage of the Noſe is eaten away, and being at Length corrupted in ſeveral Parts, it falls off, the Noſtrils grow flat, and obſtructed by the Thickneſs of their Sides. Wherefore, theſe being thus ſtopped, the Breath and Voice of the Patient ſeems to be carried thro' them. The Lips are alſo thick and inverted, the Eyes rounder near the inner Corner, and what ought to be white in them, turns yellow, thick, and covered over with a Subſtance reſembling the Nail of one's Finger. From the Eyebrows, which are grown hard and callous, likewiſe from the Eyelids and Chin, the Hairs fall off, and others come up in their Room much fewer and more ſlender than before. The Ears likewiſe about this Time become acute, are extenuated and eaten away. The Fingers and Toes are ſeized with dry Fiſſures, and are ſometimes ſo puffed up, that they are buried under the Tumour. The Muſcles are waſted all over the Body; the Countenance horrid and deformed, ſuch as

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a Satir's is imagined to be. That Things are come to Extremes, we may learn from the exceeding hoarſe and hollow Voice, and the virulent Ulcers on the Hands and Feet, by which theſe Parts are ſometimes ſo vitiated as to fall off. About this Time, the Skin near the Extremities of the Feet is deprived of Senſe, ſo that if you pierce it with a Needle, or ſcald it with hot Water, it is not ſenſible of any Pain. In the laſt Place of all, a Feveriſhneſs ariſes, which eaſily carries off the Patient already ſo much oppreſſed. Theſe Signs are not obſerved to be all in all Perſons, but ſome in one, and ſome in another. However, it muſt be noted, that when this Diſeaſe becomes inveterate, it cannot be removed by Remedies. For neither is the Skin ſolely affected, but the whole Body likewiſe, both internally and externally, ſo that the Bones themſelves are ſuppoſed to be vitiated. This Diſorder comes not only ſpontaneouſly, but may likewiſe be contracted by Contagion, and is wont ſometimes to deſcend from Parents to their Children, and that even from their very Birth.

Not many Years before our Memory, a dreadful and new Kind of Diſeaſe began to attack the Health of Man, before ſubject to ſo many Calamities: Which, ſince it is contracted by the Uſe of Venery, ſeems properly to be termed Venereal. In the firſt Place, cruſty Puſtules ariſe upon the Genitals, which void a Sanies, and turn into malignant Ulcers.

cers. Upon this comes on a Gleet, as alſo Buboes on the Groin. All theſe Symptoms, unleſs they lie deep inwardly, ſhew that the Diſtemper is not yet come, but that it is at Hand. When it firſt begins it is very mild, only the Hair falls off the Patient's Head and Chin, every Thing elſe is in good Order. Some Time after it grows worſe, and the Surface of the Body is marked with Spots, and thoſe ſmall-like Freckles in ſome Places red, in others yellow, which Spots are not removed till the Diſtemper is carried off. The Diſorder likewiſe grows more violent, and manifeſts itſelf more ſtrongly; when on the Forehead, Temples, and behind the Ears, particularly about the Roots of the Hair, and then on the Head, and alſo over the whole Body, malignant Puſtules and Tumours of different Colours break out, and heal ſpontaneouſly without any Medicine, and then bud out again. The Puſtules are ſometimes yellow, ſometimes red, round, dry, without any Pus, and covered over with a dry Cruſt; afterwards from their ſpreading themſelves round about, and eating away the Skin, is formed a virulent and ſordid Ulcer. In ſome, the hollow Parts of the Hands and Feet are chopped and dry, and grow ſcaley. Much about the ſame Time, the Palate and inner Corner of the Mouth is ſeized with black and fœtid Puſtules, ſometimes ſo ulcerated, that upon this Account the Drink returns through the Noſtrils.

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Which Caſe is however very rare at the Beginning of the Diſtemper, but frequent when it becomes inveterate, or has been two or three Times contracted. The Tongue alſo and Fauces, as likewiſe the Parts about the Noſe and Anus are ulcerated. Now the Head begins to be very heavy, with a Pain in the Neck and Shoulders, which after ſome Time reaches to the Arms and Legs, and renders the Night much more intolerable than the Day; raging chiefly from nine o'Clock at Night till three in the Morning. The ſame likewiſe ſinks deep into the Limbs, upon which, Tumours ariſe, which are very difficultly reſolved or ſuppurated. Theſe are ſometimes turned into Tophi, more particularly on the Forehead, Head, Clavicles, and Shoulder-Bone, as alſo on the Radius and fore Part of the Tibia, and ſometimes near other Bones, which, by very foul Ulcers ariſing thence, are corrupted. Then indeed, this Diſeaſe is judged to be moſt violent: For the ſolid Parts are likewiſe weakned, the Bones, Ligaments, Membranes, and Nerves; round which the malignant Humour uniting, the moſt cruel Pains are excited, and that chiefly in the Night. And the Patient being oppreſſed with theſe Calamities, joined with a Watching and Fever, ſometimes dies. But we ought to remember, that all theſe Symptoms are not always found in all Perſons, but ſome in one, and ſome in another. For one while there are only Puſtules,

another while Pains, or Nodes, or Ulcerations. In the former Case, the Cure is more expeditious, in the others, there is none, or at least a very difficult one, especially, if they be of long Standing. In the last Place, it is plain, that this Disease is entirely contagious, and contracted by the sole Contact of a vitiated Body, and that it passes from Parents to their Children after the Manner of the Elephantiasis, and that Women are more subject to this Contagion than Men. When it is recent, it is easily cured, when inveterate, hardly ever. Medicine is equally useless, if while under this Distemper, the Body is likewise seized with a Marasmus, or a Shortness of Breath, by the *Greeks* called Ἄσθμα. After the Disease is cured, some grow wondrous corpulent, others troubled with a Hoarseness; upon others, there remain unseemly Cicatrices, the Marks of deep and filthy Ulcers.

MEDI-

MEDICINAL OBSERVATIONS

BOOK II.

Wherein are deſcribed the Diſorders incident to the ſeveral Parts of the BODY.

THERE is ſcarcely any Part of a human Body ſo ſubject to Pains as the Head. For any Thing eaſily riſes hither from the lower Part of the Body. The Part itſelf being likewiſe impotent, by Reaſon of its own proper Conſtitution and Temperament, both eaſily admits and generates the Cauſe of Pain itſelf. Wherefore, when for many Years the Headaches often, and from a very ſlight Cauſe, we muſt know that there is either a Cephalæa or Hemicrania: In the former, the Head is weakned by its own proper Affection, and the

whole, or at leaſt, the greateſt Part of it is in Pain: But in the latter, only one Side is pained, and that from a Conſent with the Præcordia and lower Parts, and begins generally with a Pulſation in the Temples. Both theſe Pains, as alſo all others, are comprehended under the Term *Cephalalgia*. In all Head-aches, the Danger turns upon this, that they continually torment the Perſon, and deprive him of Sleep. But if a greeniſh Vomiting and Deafneſs ſupervene, they indicate Madneſs to be near at Hand. Likewiſe when any violent Pain of the Head is accompanied with a Diſtenſion of the Nerves, or an Inflammation fixed near the Eyes, or any other Part of the Body; or laſtly, an Inflation or Subverſion of the Eyes, great Danger is portended. It is likewiſe plain from the Obſervation of the Ancients, that a violent Head-ach, which does not yield to any Method of Cure, but is rather exaſperated thereby, and continues fixed, threatens Madneſs in a Fever: But if there be no Fever, that then this Madneſs, and more particularly Blindneſs is preſaged. In acute Pains of the Head, if a Ringing in the Ears without any Fever, a Vertigo, and an Impediment of the Speech, and a Torpor of the Hands ſhould happen, we may then reaſonably expect either an Apoplexy, Epilepſy, or Lethargy. Add to this, that if the Head-ach be inveterate, ariſing from a cold Matter, it is very difficultly cured, eſpecially in old Perſons. When the

Head

Head is aggrieved in the whole, or any Part, if Pus, Water, or Blood flow from the Nose, Mouth, or Ears, we may know that the Distemper is solved.

I SHALL now in order persue those Distempers of the Head, which are joined with a Perturbation of the Senses, and shall begin with a *Delirium*, by the *Greeks* called Παραφρένεσις. This is for the most Part more terrible than dangerous, since it often happens that in strong Paroxysms of acute Fevers the Patients lose their Understanding and talk wildly; but when the Violence of the Fit is abated, the Mind immediately recovers itself. However, this springs not from slight Disorder, nor can happen but in a violent Fever; and generally as this abates, a very profound Sleep ensues. But the following are no ambiguous Signs of an imminent Delirium. A greater Hurry in Speaking than when the Patient was in Health, and a sudden Talkativeness, and that more imprudent than usual. A Gnashing of the Teeth, even while the Body is yet firm, the Gesture very extravagant, the Eyes frequently rowl about, and thro' an excessive Pain of the Head become dim, or if there is no Pain, yet cannot obtain any Sleep, and the Watching continues both Night and Day. The Respiration is rare and surprizingly strong, the Pulse quick, and the Body lies prostrate on the Belly, unless this Posture be occasioned by any Pain in the Belly.

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BUT that Kind of Madneſs is moſt ſhocking and dangerous, which ariſes from an Inflammation of the Brain or its Membranes, by the *Greeks* called φρενῖτις. It is known by theſe Signs: There is an acute and continued Fever, and a continued Alienation of the Mind, the various Powers of the Soul being at different Times diſordered: The Patient grows extremely audacious, and is ſeized alternately both with a Watching, and difficult and turbulent Sleep, ſo that his Reſt being interrupted, he throws himſelf immediately and with Violence out of his Bed; he roars, raves, one while he weeps, another while ſings, and throws out Words without any Senſe, or any certain Order, and if aſked any Queſtions, gives always impertinent Anſwers. All which Symptoms ſhew ſo much the more Danger, the more quiet the Patient was (as generally happens) in the Beginning of the Diſtemper. In this Diſorder there is an unuſual Mobility in the Eyes, which are bloody, inflamed, and ſqualid, often rubbed by the Patient, one while dry, another while watry, and the Tongue rough and black, the Teeth gnaſh, oftentimes there is an Hæmorrhage at the Noſe, and ſometimes the back Part of the Head aches. Beſides, the Patient is extremely thirſty, talks very idly, and fetches his Breath deep, but ſeldom. He likewiſe trembles with his Hands, and plucks the Flocks and Threads of the Bedding with his Fingers. His Urine is thin

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and flame-coloured, ſometimes alſo (which is judged to be a very bad Sign) thin and white. This Kind of Madneſs is by far the moſt acute, and ſoon deſtroys the Perſon, unleſs timely relieved. That it is fatal, is manifeſted both by the continual Diſtraction and Watching, the obſtinate Suppreſſion of Stools and Urine, or the Urine firſt abundantly coloured, afterwards white and thin, as alſo a Diſtenſion of the Nerves, a difficult Extenſion and Contraction of the Legs, and Syncope.

Now follows the third Kind of Madneſs, wherein the Patient loſes his Senſes for a long Time without any Fever, by the *Greeks* called Μελαγχολία. The Patient is for a long Time affected with Sadneſs, Fear, and Watching; as likewiſe an Averſion to human Converſe, together with perpetual Grief, and Tears, tho' ſome are continually laughing. They are all exerciſed with vain and intenſe Cogitations, ſo that they often ſtand as if they were ſtupid, with their Eyes fixed on the Ground, and being ſuddenly diverted from their falſe Imaginations, they walk off very quickly ſighing. Thoſe that are more grievouſly afflicted, believe themſelves to be either Beaſts, or made of ſome brittle Ware, or elſe that they have given up the Ghoſt. Wherefore, ſome with their Voices imitate the Crowing of a Cock, others ſtrike every Body who come near 'em, fearing (ſince they are ſo brittle) that they ſhould be broke in Pieces

Pieces; others obſtinately refuſe their Food, as imagining themſelves to be dead.

THOSE who labour under this Diſtemper, as they have a great Dread of Death, ſo in their Deſpondency they very often bring it upon themſelves. In all of them the Head, Eyes, and Face are hot: Sleep, as it is particularly neceſſary, ſo it is extremely difficult. Of the ſame Kind of Diſeaſe, is the flatulent Melancholy eſteem'd, by the *Greeks* called ὑποχονδριακή. It is a Diſorder ariſing from an affected Liver, or rather Spleen; one while with a Tumour on the Spleen, another while without any, not only on the Spleen, but alſo the Meſentery: And is uſually rendered the more ſevere by an Addition of a ſmall Portion of aduſt, black and pernicious Choler, weakning every Thing by its Halitus.

THIS Diſeaſe is diſtinguiſhed by much the ſame Signs as the former: Except that in this the Hypochondria are drawn upwards, and are ſometimes beſides a Weight affected with a Heat. There is a vehement and troubleſome Pulſation of the Arteries. To theſe are added Vertigoes, Ringing of the Ears, Crudities, ſower Belchings, much Spiting of thin Saliva, for which Reaſon there is no Thirſt; a Vomiting of Phlegm, one while mixed with Bile, another while acid, whereby the Teeth are likewiſe ſet on edge. While the Stomach digeſts the Victuals, there is felt a Pain between the *Scapulæ*, which, when they are concocted, immediately ceaſes.

The

The Belly is often bound, and diſturbed with a Flatus and inward Grumblings. Beſides, there is ſometimes a Palpitation, and as it were Suffocation of the Heart. By Crudity, the Diſtemper is much increaſed, by Concoction greatly relieved, and is far milder than the Diſtemper before deſcribed. Some, whoſe Brains are totally affected with the Violence of this Diſorder, grow furious, and fall into a Fever not unlike an Hectick, and which readily turns into a Maraſmus. Every Species of Melancholy is more familiar to Men, and elderly Perſons, but worſe in Women. Thoſe who labour under this Diſtemper, rarely eſcape without a Tumour of the Spleen. If either the Hæmorrhoids, Varices, or (according to ſome Perſons) a Dropſy ſupervene, the Diſtemper is ſolved: Some have found by Obſervation, that the Melancholy has turned into an Epilepſy, and this again into that. And it generally happens, that when the Melancholy is recent, it is not very difficult to cure, but when once it is grown inveterate, it hardly ever yields to any Remedies.

Now follows that Species of Madneſs, which we call *Furor*, or *Rabies*, and the *Greeks* Μανία. Here is the ſame Allienation of Minds as in melancholick Perſons, but then there is ſuperadded an unbridled Anger, formidable by its Outcries, Threats, ſtern Looks, and violent Strength of Body. It ariſes chiefly from the

the Blood, there is a conſtant and diſſolute Laughter, with pleaſing Images ſporting before the Eyes. But if it be rather occaſioned by the Bile, there is nothing but unuſual Temerity and Cruelty. Whence the Truth of *Hippocrates*'s Obſervation is plain, that Madneſs attended with Laughter is moſt ſafe, and that which is ſtudious, more terrible. For the moſt Part this Diſtemper is without any Fever, tho' that ſometimes happens from the black Humours growing putrid. If the Menſes come down, or Hæmorhoids, or Varices ariſe, there is Hope of a Recovery. Ulcers breaking out on the Face and Feet, are not ſafe, or an entire Loſs of Appetite.

The neareſt allied to this Kind of Madneſs, is that which is occaſioned by the Bite of a mad Dog, by the *Greeks* called Υδροφοβία. A moſt miſerable Diſeaſe, which excruciates the Patient with Rage, Thirſt, and Dread of Water. When any one is firſt bit, all Things are moderate in Proportion to the Wound; but after ſome Time, the Pains grow violent, and the Mind begins to be diſturbed with wild Thoughts. The Patient becomes moroſe, fierce, and angry: He mutters much to himſelf, and as if any one had aſked him any Queſtions, makes frequent Reſponſes. After this he begins to dread the Sight of Water, and fancying a Dog to be hid in it, he cries out and ſhudders for Fear.

His Mind is ſo diſturbed, that he does not know his moſt intimate Acquaintance. At this

this Time a perfect Madneſs enſues, and a Deſire of biting others; under which Circumſtances ſome bark like Dogs, others emit Semen without any Deſire of Venery, and others if they drink any Thing die ſtrangled. In all of them the Sleep is turbulent, and full of Horror and Fury. Add hereto a Diſtenſion of the Nerves, Singultus, implacable Drought, and (what generally happens laſt) a cold Sweat and Syncope; tho' the Patient often dies of Thirſt, before theſe come on. Farther, when this Kind of Madneſs is confirmed by Time, it is ſo far from admitting any Cure, that it is certain no one in this Caſe has ever been recovered: I call it confirmed, where is no Uſe of the Underſtanding, and the Dread of Water begins. Which have been obſerved to happen to ſome after the fortieth Day, to others after the ſixth or ſeventh Month.

Some Authors are of Opinion, that this Diſorder may lye dormant ſeven Years. But this is certain, that many Perſons have been thus bit, not knowing it was done by a mad Dog, and by truſting too much to the Cure of the Wound, and a good State of Health, have brought this Calamity upon themſelves. Wherefore the following Experiment is at this Time uſeful: Take a Piece of Bread, and lay it on the Wound, then give it another ſound Dog to eat; if it does not make him mad, we may conclude, that the Dog which made the Wound was not ſo neither.

From

From the following ſigns we may generally know when a Dog is mad: He is hungry and thirſty, yet neither eats or drinks, his Eyes are flaming and fierce, he hangs down his Ears, throws out his Tongue, foams much at the Mouth, barks at his own Shadow, oftentimes runs about ſad and anxious without barking at all, breathes quick as if tired with running, he carries his Tail intorted, attacks and bites every Animal he meets indifferently, and rambles on in a precipitate and uncertain Courſe. Dogs which are well, both dread and fly from the Sight and Barking of one that is mad.

I SHALL now proceed to thoſe Diſorders of the Head, which ariſing from cold Cauſes, likewiſe vitiate the Underſtanding; I ſhall begin with a Lethargy, of which theſe are the Signs: a Leanneſs, an almoſt inſuperable Neceſſity of Sleeping, and a ſlow Fever without any very remarkable Heat: Add to theſe a Phrenſy, and ſo great an Oblivion of every Thing, that when the Patient gapes (which is very frequent with theſe People) he even forgets to ſhut his Mouth, or if in order to make Water, he ſhould aſk for a Pot and take it into his Hand, he quite forgets the Buſineſs he was going about. Beſides this, his Eyes are ſhut, and when he is ſpoke to, his Eyelids ſcarce open, and immediately cloſe again, and return to their former Drouſineſs. This Drouſineſs is ſometimes ſo obſtinate, that tho' the Patient be pulled by the

the Hair, he is not ſenſible of Pain, but being entirely ſtupid, he lies like a Log. His whole Body ſluggiſh and heavy, but more particularly the Head. Sometimes a Singultus begins. The Pulſe is equally great and ſoft, as in an Inflammation of the Lungs; but yet ſlower, rarer, and leſs unequal, and rather intermittent than intercurrent, ſometimes with a double ſtroke, always, when the Coma predominates, undulatory. The Reſpiration is rare and weak. And the Belly in ſome is liquid, in others compreſſed. The Urine turbid, like that in Cattle. The Patient lies ſupine, and if laid by others on his Side, he turns again of himſelf upon his Back. This Kind of Diſeaſe is certainly acute, and if not timely relieved, ſoon deſtroys the Patient. A Tremor forebodes great Danger, as alſo does a cold Sweat round the Head, in the Vigor of the Diſtemper. Whoever recovers from this Diſorder, is generally troubled with a Suppuration in the Breaſt. Oftentimes the Lethargy is ſolved, by an Abſceſs breaking out behind the Ears.

A Carus very much reſembles a Lethargy in its Signs; it does not excite but follows a Fever, and that no ſlight one: tho' it likewiſe ſucceeds a Compreſſion of the Brain, and Epileptick Fits: The Lethargy is properly a Diſtemper of itſelf. Neither Diſorder comes on ſuddenly. In a Lethargy likewiſe, the Patient anſwers to any Queſtions

made him, tho' with Difficulty. In a Carus the Respiration is unhurt. But nothing of these is observed in an Apoplexy. When a Carus is solved, a good State of Health generally succeeds, but an Apoplexy is followed by a Relaxation of the Nerves.

A CATALEPSY is thus known. The Patient is suddenly deprived of Understanding, Sense, and Motion of his Body; and therefore remains in that Posture he was first seized in, whether sitting or lying down, and that with his Eyes either shut or open. Those who are attacked with this Distemper, unless timely relieved, die stupid, and as it were killed with Cold.

A COMA, which is likewise called a Sopor or profound Sleep, is observed by these Signs: The Patient sleeps with his lower Mandible hanging down, and being waked, relapses immediately into his Sleep again; wherefore this is called by the *Greeks* Ὑπνώδες. But if to this Propensity to Sleep, a Watching be likewise added (the *Greeks* term it ἄγρυπνον Κῶμα) the Understanding and all the Senses seem overwhelmed with Sleep: The Patient however retains the Form and Figure of a Person awake. In this Disorder an Impediment of the Speech, a Ratling in the Throat in Respiration, a Difficulty in swallowing of Drink, a thin *Pituita* distilling from the Nose, a Retention of the Urine and Stools, and a great Propensity to lying on the Back, denounce Danger to be very near.

I SHALL now proceed to deſcribe the Epilepſy. This then is much to be apprehended, when the Head is heavy, and akes, eſpecially when the Perſon is moved to Anger, when there is an Alienation of the Underſtanding, and a Stupidity of the Senſes, as alſo a Vertigo, and Darkneſs thrown before the Eyes, when the Dreams are frightful, when the Tongue moves without any Order in ſpeaking, and the Patient in talking bites it; when beſides this, the Countenance grows pale, the Reſpiration difficult, the Belly ſwells with Flatus's, when the Urine is unuſually thin and crude, both at other Times, and alſo when any Pain or Convulſion has ſeized the Shoulders, Neck and Head, or the Body becomes torpid, or the Dreams turbulent. As ſoon as the Diſeaſe invades him, the Patient ſuddenly falls down convulſed, roars, ſnores, and foams, ſometimes he is agitated and trembles: Then after ſome Time he recovers and riſes of himſelf. Some void either Stools, Urine or *Semen* involuntarily in the Fit: If the Diſorder ariſe from the Ventricle, this is firſt ſeized with a Gnawing, eſpecially when empty, as likewiſe with a Palpitation and Fluctuation; and when the Fit is near, a Nauſea ariſes, and Pain in the Stomach, or a Swooning, which being ended, a Vomiting enſues, bringing off one while Phlegm, another while Bile, beſides which, there is a frequent Hiſſing in the Ears. Farther if the Diſeaſe take its Riſe from ſome external Part of the Body,

a Senſation of very cold Air runs through the Body up to the Head. But the Epilepſy is then worſt, when it continually recurs, and the Intervals between the Fits are very ſhort, and it perſeveres a long Time after the Evaſion, eſpecially if there be a great Vertigo, and Difficulty of Breathing; a vehement and long Agitation of Body, which is ſucceded by a profound Reſt like a *Catoche*, in which the Patient ſeems to have loſt his Life. And if at this Time no Sneezing Medicines are found to avail any thing; we may conclude that Matters are in Extremes, and the rather if the Foam wiped from the Mouth often return, and alſo if there be a vehement Tremor, Vociferation, and Snoring: And if when the Fit is gone off, the Patient does not remember any Thing, or is not aſhamed of his Actions. This Diſeaſe is for the moſt Part long, continuing with the Patient to his laſt Day, yet without endangering his Life, altho' ſometimes, when it is recent, it carries him off by its frequent and violent Fits.

But from whatever Cauſe it may ariſe, it is uſually more familiar to Men than to Women, more to Children, eſpecially to ſuch as are new-born, than to Adults, and leaſt of all to Men advanced in Years. Nothing tends ſo much to the Removal of this Diſeaſe as the Progreſs in Age. For in Youths it is generally ſolved by the Uſe of Women, and in Girls, by the coming down of the Menſes

ſes: But if any one has already exceeded his five and twentieth Year, he is very difficultly or hardly ever cured, but ſubject to it all his Life-time, eſpecially if he was born of epileptick Parents, or conceived during the Flux of the Menſes. It has likewiſe been obſerved, that if this Diſeaſe attacks a pregnant Woman, it is ſolved after her Delivery; and if the Fœtus has contracted any Thing of this Diſorder, that it generally ceaſes after its Birth, if it immediately vomit and throw up much watry Excrement; if not, that then the Diſeaſe continues. In this Diſorder a white Scurf ariſing on the Head, and cruſty Scabs breaking out upon Children, give us ſome Hopes of a Cure, eſpecially if it has not been of any long Standing, and was occaſioned only by an Intemperance in Living: Or if the Senſe of the approaching Fit begins at any one Part of the Body, and that at the Hands or Feet, rather than at the Sides, or (what is worſe) at the Head itſelf. On the contrary, when the whole Body is affected at once, and the Illneſs firſt perceived in any particular Part, but the Perſon falls down of a ſudden, let him be of any Age whatever, he is ſcarcely ever cured. Alſo if the Senſes be impaired, and the Nerves relaxed, there is no Room for Medicine. I likewiſe find ſome Perſons firmly perſuaded, it aſſures a perfect Recovery, if a long Fever, and particularly a Quartan ariſe in this Diſeaſe.

The Incubus, by the *Greeks* called Ἐφιάλτης, is known by these Signs. During his Sleep the Patient fancies himself loaded with a certain Weight, and pressed upon by another Person: He himself being wholly torpid, and almost immovable, and imagining himself suffocated cannot utter his Voice; or if he does, it is uncertain, small and indistinct: At length growing vehemently anxious under these Circumstances, his Sleep is broken off, and he wakes on a sudden. This Disorder is familiar to Men often loaded with Surfeiting and Crudities. It is worse, when it falls upon Persons in the Night while awake. But when it seizes Persons asleep, if cold Sweats and a Tremor of the Heart should ensue upon waking, it is then most dangerous. The Incubus seldom happens to those Persons who lie on their Sides. Those who have been frequently seized with this Disorder for a long Time, are threatned with some violent Illness in the Head, as a Vertigo, Apoplexy, Epilepsy, Madness, Distensions of the Nerves, or else sudden Death. For it is certain, that some have been found dead in their Beds of this Distemper.

The Apoplexy, tho' sometimes it hath no preceding Signs, yet the following are for the most Part observed to come before it, a sudden and acute Pain of the Head, Vertigo, Dimness of the Eyes, and Gnashing of the Teeth in Sleep, and Coldness of the whole Body, but especially the extreme Parts. Then

the

the Patient ſuddenly falls down with a great Outcry, and after that ſnores with his Eyes ſhut, and a difficult Reſpiration coming on he is almoſt ſuffocated, his Cheſt labouring as if prevented riſing by a Bandage. Beſides this, all Senſe and Motion periſhes, the only hopes of Life left in theſe miſerable People being from their Breath. The Reſpiration, as it is eaſy or troubleſome, ſhews the Meaſure and Violence of the Diſtemper. Wherefore we may know that it will be fatal if the Breath much intermit, or be drawn in with exceſſive Difficulty. It is leſs to be dreaded, if with no difficult Reſpiration, his Drink does not return by his Noſtrils, but entirely deſcends.

WHATEVER Apoplexy is violent cannot be cured: That which is milder may, tho' with Difficulty. It ſeldom goes off without relaxing one Side of the Body, and this generally happens in the firſt four Days, which Space if the Diſtemper paſſes, it kills the Patient. Oftentimes ſome have been ſo lightly affected with this Diſeaſe, that the Mouth only being diſtorted, and the Senſe and Motion loſt, they have neither foamed nor ſnored, and being cured by Remedies, they have recovered, without any Relaxation of the Nerves. The Apoplexy is moſt familiar to thoſe, who have already paſſed their fortieth and not yet arrived to their ſixtieth Year, eſpecially if they be of a cold Conſtitution, and frequently affected with a Heavineſs of

the Head, Sopor, and Dimneſs of the Eyes; if they have ſhort ſtreight Necks, and wholly give themſelves up to Idleneſs, Gluttony or Drinking. But Youths, and thoſe who are ſomething older, cannot labour under this Diſtemper, unleſs from very violent Cauſes, nay, nor hardly any one elſe, if it be Summer-time. For in this Caſe Death generally enſues. The Winter-Seaſon is more ſubject to this Diſeaſe, eſpecially if the Winds be very cold, and the Weather thick and cloudy. Farther it is good in this Diſtemper to open the Hæmorrhoids; Colds and Numbneſs are pernicious; and Sweats ariſing from an impeded Reſpiration fatal. Oftentimes in this Diſeaſe, the Body, which to many appears extinct, may be yet alive, eſpecially in Women and Men of a cold Conſtitution. This is eaſily diſcovered by holding a Feather before the Noſtrils and Mouth, or placing a Veſſel full of Water upon the Breaſt, for if any Motion appear in theſe, the Patient ſtill ſurvives; if they are perfectly immoveable, he is dead. The Remark which *Hippocrates* has left us ſeems not ill-grounded: That if a healthy Perſon be ſeized with a ſudden Pain in the Head, Dumbneſs and Snoring, he will expire within ſeven Days: But that he may be ſaved, if before that Day a Fever ſhould come on.

THE next Diſtemper which offers itſelf to our Conſideration is a Relaxation of the Nerves, called by the *Greeks* Παράλυσις. This when

when it ſucceeds an Apoplexy is in *Greek* termed Παραπληγία, and ſometimes ſeizes the whole Body, below the Head, at other Times only one Side of it. But when it begins without any antecedent Diſeaſe, it alſo ſeizes the whole Body below the Head, or only one certain Part, as the Tongue, Eye, Cheek, Lip, Arm, Leg or the like. The forerunner of this Relaxation is a Numbneſs, which gradually increaſing the other ariſes. The former Kind is the more dangerous, and often relapſes into an Apoplexy, the latter tho' it be of equal Duration is yet by far the more mild. In both, the Senſe one while periſhes leaving the Motion intire, another while the Motion is loſt and the Senſe untouched, oftentimes (when the Diſorder is conſummate) they both happen together. When this Diſeaſe has affected only one Side, this ſometimes feels Cold, while the other, which is ſound, is hot. The Eye likewiſe is diminiſhed on that Side which is affected. In this Diſeaſe the Pulſe is languid, ſmall, ſlow, rare, and ſoft: Sometimes alſo quick and unequal, but intermitting without any certain Order. The Urine is generally thin and pale, tho' ſometimes when the Kidneys are weak, it is reddiſh. This Diſtemper is always very long, and ſucceeding others oftentimes ſolves them, the Apoplexy, for Inſtance, (as I have juſt now obſerved) as alſo lingring Fevers, Cholick Pains, and Fits of the Mother. It often happens in the Winter, and is very difficultly

ficultly removed in old Perſons, eſpecially if very ancient; or if it has been of any Continuance. The proper Times for Medicine, are firſt the Summer, then the Spring: In Winter or Autumn we can hardly hope Succeſs. That Part which is relaxed, eaſily grows cold, becomes heavy, ſoft, and lax, and is when the Diſtemper proves inveterate, at length emaciated. After this it hardly ever recovers its priſtine State, eſpecially if it be intirely deprived of Motion, and exhibits a different Colour from the reſt of the Body. A moderate Palſy is ſcarce ever cured, a violent one never. When it is occaſioned by Rupture or tranſverſe Inciſion of a Nerve, it is not cured. Equivalent to a Recovery, is the Acceſs of a Fever or a Tremor.

Since I have begun to treat of the Diſorders of the Nerves, I muſt not omit the Diſtenſion of them, which is by the *Greeks* called Σπασμός. The Member is ſo contracted, that it cannot be reduced to its former Habit, the Nerves and Muſcles being drawn towards their Origin involuntarily, and this with the moſt exquiſite Pain, which ſometimes conſumes the Patient's Strength. As to the Pulſe, the Artery is convulſed, and collecting itſelf every Way unites, and like a Cord which is drawn tight and looſened, it is carried upwards and downwards, This Diſeaſe is indeed rare but extremely acute, and therefore ſoon deſtroys the Patient. When it ſud-

denly

denly ſeizes a ſound Perſon, it ſucceeds the Cauſes of Repletion, particularly, if a neceſſary Evacuation has been ſuppreſſed, and the Perſon has given himſelf up to Inactivity and hard Drinking: But when it is preceded by a violent Fever, or immoderate Evacuations or Labour, and more eſpecially Watching and Faſting, it is to be obſerved that this Diſorder ariſes from *Inanition*, and is greatly to be dreaded, as hardly being ever cured by the Aſſiſtance of Medicine. Wherefore *Hippocrates* well obſerves, that after acute Fevers, and immoderate Purgations eſpecially with Hellebore, after great Wounds, or any other exceſſive Flux of Blood, Spaſms are always mortal. But it muſt be noted, that this Diſeaſe often happens ſuddenly to Perſons in a Fever, without any antecedent Signs, and that a bilious Vomiting coming on, it immediately ceaſes; wherefore its Cauſe is to be referred to the Diſorder of the Stomach, and not to the Fever. Farther there is likewiſe a certain moderate Diſtenſion of the Nerves and Muſcles, which ariſes from Flatulencies, and is in Greek termed Σπασμὸς φυσώδης. For tho' it excites a violent Pain, it is yet very ſhort, not laſting above an Hour, and mitigated only by Friction. This Diſorder often attacks the Fingers and Toes and ſometimes the Legs, extending and contracting them with moſt exquiſite Torment. And it is familiar to thoſe who give themſelves up to Surfeiting and Indolence. The

Diſten-

Diſtenſion of the Nerves is uſually more frequent in Children, eſpecially, thoſe newly born, and eaſier to be cured; tho', ſometimes it is even dangerous in them, if ſeized with a malignant Fever. No Child after ſeven Years old, is affected with a Diſtenſion of the Nerves in a Fever, unleſs this be very acute and malignant.

But that Child is liable to this Diſtemper in a Fever, whoſe Belly has been long coſtive, attended with a Watching, Terror, and ill Change of Colour. It muſt be obſerved, that this Diſeaſe is one while injurious to one Member, as the Eye, the Skin on the Forehead, Root of the Tongue, Cheek, Lips, Arm, Hands, and Legs, but that it is more ſevere in the Neck: One while again, it attacks all the Parts below the Head, another while, it ſeizes the whole Body. The two former Kinds are comprehended in the *Greek* Term Τέτανος, which the *Latins* call *Rigor Nervorum.* The laſt Kind is in the Epilepſy, in which, becauſe the Head aches, and the Underſtanding and Senſes are vitiated, and the Affliction is not continual, as in the former Kinds, but returns at different Intervals: Therefore, ſince we have made our Obſervations upon this Diſeaſe in its proper Place, we ſhall at preſent treat of the Rigor of the Nerves. In this Diſorder when the Neck and Body cannot be bent, but is extended ſtraight, this is called a *Tetanus:* When it is bent forwards, ſo that

that the Chin joins to the Breaſt, then it is called by the *Greeks Emproſthotonos*; when the Body is drawn backwards, and the Head inclines to the Scapulæ, it is called *Opiſthotonos*. Beſides theſe Signs, others likewiſe follow: For the Face is red and pained, the Cheeks grow ſtiff, as if made of Wood, the Mouth ſcarce opens, the Eyes being diſtorted water, the Back grows ſtiff; the Legs and Hands are not much affected, eſpecially in a *Tetanus*. In the *Opiſthotonos*, the Patient cries out, and is excruciated with violent Pain: Theſe increaſing, he throws himſelf out of Bed, and talks idlely: But abating, a better Mind and Tranquility return. He doubles his Fiſt, and neither contracts his Legs, nor extends his Hands. Sometimes alſo when the Diſtemper comes on, he loſes the Uſe of his Voice, and in all Things reſembles a Man raving mad: In which Caſe, Death is certain, and the more ſo if the Patient want Strength, and ſweat, and his Drink return thro' his Noſtrils. All Rigors of the Nerves carry off the Patient within four Days, which if it exceeds, he recovers. When any one dies, he throws up his Drink, Suppings, and Phlegm, thro' the Noſtrils.

I SHALL now ſpeak of that Defluxion, called by the common Name of *Catarrhus*. If the Humour falls from the Head into the Noſtrils, it is mild; worſe, when upon the Fauces, and the Aſpera Arteria; worſt of all upon the Lungs. If the Matter is carried into

into the Noſtrils, and be cold and ſluggiſh; a thin Phlegm diſtils thro' them; the Head is ſlightly pained, but very heavy; after ſleeping the Eyes grow dim, there are frequent Sneezings, the Outſide of the Noſtrils is cold, oftentimes a Heavineſs obſtructs 'em inwardly, and offends the Voice: During this, the Urine is generally crude and turbid. If this Matter falls upon the Fauces and Aſpera Arteria, it excites a Hoarſeneſs and a ſmall Cough. If upon the Lungs, a violent Cough and difficulty of Breathing: And after this, according to the Obſervation of *Hippocrates*, it is expectorated within the twentieth Day: but if this does not happen, it generally turns into a Shortneſs of Breath, by the *Greeks* called Ἄσθμα. Farther, if it ariſe from a hot Cauſe, the Face reddens, and an acrid, ſalt, and thin Humour diſtils; there is a great Loathing of Food, the Ears ring, the Arteries are much agitated in the Head. At this Time a Fever generally ariſes, by which, the Diſorder is yet nothing alleviated. There is likewiſe Danger of an Inflammation on the Side, which Diſeaſe, the *Greeks* call a Πλευρῖτις, eſpecially if this happens now to be epidemick. But if this Humour falls upon the Fauces and the Aſpera Arteria, beſides a Cough and Hoarſeneſs, it likewiſe makes theſe Parts rough. If it fall upon the Lungs, beſides the Sneezing and hard Cough, there is a Heavineſs of the Head, Thirſt, Laſſitude, Heat, and bilious Urine. As the other

other Kinds of Defluxion are generally unattended with Danger, so this is dangerous, and also certainly fatal, if it hath ulcerated the Lungs, whence a violent Tabes arises, which in Time consumes the Patient.

THAT this Tabes either is already come, or that it is a coming, is indicated among the other Symptoms, by the oily Urine; and this Disorder is the more to be dreaded, if the Defluxion, already become inveterate, has seiz'd upon a slender and tall Body. Sometimes the Humour attacks the Parts below the Diaphragm; namely the Ventricle, and subverts its Appetite and Concoction, and corrupts whatever is taken into it: Oftentimes, when it is acrid, it corrodes the Coats of the Stomach, and brings on a *Diarrhœa*. Sometimes also it convulses the mesenterick Veins and Colon. Those Persons are most exposed to Defluxions whose Heads are naturally weak, and at the same Time one of the Viscera intemperately hot; as the Heart for Instance, Liver or Kidneys. This Disease, is very difficultly cured in old Persons, as likewise in those whose Heads continually ach. No Season of the Year is so liable to Defluxions as the Autumn: For the Weather is then very various and changeable; which, according to *Hippocrates*, is the chief Cause of Catarrhs. In this Disease, the best Sign of Recovery is the Defluxion's turning upon the Nostrils and Mouth.

THE

THE Eyes are liable to great and various Mischances: Of which, those which fall chiefly under the Care of the Physicians, are a Suffusion, and Ophthalmy. I shall begin therefore with the Suffusion, which is termed by the *Greeks* Ὑπόχυμα. The Sight gradually grows dull, and small Gnats and Flies, or other lucid or dark Bodies, at first seem to be sporting before the Eyes.

SOMETIMES there is the Appearance of certain thin Fila or Cobwebs. To others looking on a Candle, it seems to be environed with certain obscure Circles; after this, the Pupil begins to be turbid, dark, and not very clear.

LASTLY, according to the Form the Suffusion receives from the Pupil, various Images of Things are presented: And these, after some time, increase, till the Matter growing thick, the Person becomes wholly blind. Generally this Disorder does not begin at the same Time in both Eyes, neither is it discerned at the same Time, or in the same Manner: Sometimes it seizes one only. And when once it is formed, it always continues, deceiving the Eyes with constant Appearances of Things. Upon which Account it differs from that kind of Suffusion, which proceeds from the Stomach; for this both intermits and remits, if the digestive Faculty of the Stomach be remedied, but grows worse and returns, if the Stomach be weakned with Crudities. Moreover, it affects both the

the Eyes at the ſame Time, and in the ſame Manner; which, if any one ſhould inſpect, he would find no Obſcurity or concreted Humour in them. A true Suffuſion of the Eyes, if it be of any long Standing, cannot be cured but by the Needle: Which Remedy is yet doubtful, if it be not applied at that Time when the Concretion is ſo firm as to be able to ſtand againſt the Needle. Therefore, if the Accretion, being rubbed, is dilated, and continuing thus, is not again contracted: Alſo, if the Patient be not abſolutely deprived of Sight, but ſtill ſees certain Images of Things; as alſo, if the Diſorder hath not yet exceeded the third, fourth, or fifth Year, it is yet too recent, and unripe for the Needle. Upon the Account of its Age, it likewiſe reſiſts all Means of a Cure; and being once removed, it immediately returns, when on ſhutting one of the Eyes, it is not dilated by Compreſſion or Friction, but takes away all Viſion at once. But there is ſome Likelihood of performing a ſafe Cure, if being dilated by Friction, it returns together again, and exhibits a Colour obſcurely white. For that which is black, or of a ſtrong Yellow, can neither be cured by Medicine or the Needle. Farther, there is another Suffuſion proper to the Eyes, which exhibits no Appearance of concreted Matter to the Beholders, but is perfectly ſerene: This occaſions a perpetual Blindneſs, and yields to no Remedy.

An Ophthalmy is thus known: The Eyes are vehemently inflamed, with much Pain, Tenſion, Heat, Redneſs: Sometimes with ſo great a Compunction, that the Eyes ſeem to be ſtimulated with a Needle or a Thorn. They are likewiſe filled with ſcalding Tears, ſucceeded by a Phlegm, one while in ſmaller Quantities, another while in greater. And a certain Foulneſs adheres to the greater Angles of the Eyes, and when the Diſorder grows more violent, the adjacent Parts and the whole Cheeks are ſwelled, the ſurrounding Arteries beat vehemently, and the Inflammation itſelf ſpreads from the Corners of the Eyes over all the contiguous Membrane. With this the ſmall Veins of the Eyes grow turgid, and are rendered conſpicuous, which in Health lie obſcure in the White of the Eye. And that Part which ought to be white all over the Eye, generally grows red. This Diſeaſe is then moſt to be dreaded, when in Health the Temples often ach, and the Body ſweats, and the Forehead itches in the Night. The Beginning of this Diſtemper is diſtinguiſhed by a Flux of thin Rheum from the Eyes; the Increment by its thickning and growing white; when it is entirely thick, and in a large Quantity, and as it were glues up the Eyes during Sleep, it ſhews that it is come to its State; the Declenſion is when the Rheum and the Signs peculiar to the Diſeaſe are diminiſhed. But it is beſt to have the Tears, Phlegm, and Swell-

Swelling begin together, ſo that the Tears be mixed with white and ſoft Phlegm, and not very hot, and the Tumour ſlight without being very hard. For then the Eye-lids are glued together in Sleep, and the Pains are not equally violent: The Diſtemper itſelf is ſafe and very long. But if the Tears be copious and hot, and very little Phlegm, the Swelling however ſmall, and the Diſorder but in one Eye, it is then not very painful and dangerous, but will run into a great Length, and cannot be ſolved before the twentieth Day, in many it continues even to the fortieth, and in others again it reaches even to the ſixtieth. In all Ophthalmies, the Phlegm, which is diſcharged, ought to be white, and ſoft, and mingled with Tears, eſpecially when the Criſis is near. A dryer Phlegm excites abundantly more Pain, but then this is ſooner ended, unleſs there be an Ulceration. No Danger attends a large Swelling, if it be free from Pain, and dry.

When there is any Pain, it is bad, if it be dry, and there is danger leſt the Eye ſhould ulcerate and concrete. But that Tumour is not very ſecure, which is joined with Tears and Pains. When the Tears are hot and ſalt, there is Danger leſt the Pupil and Eyebrows ſhould be ulcerated. And if the Tumour ſubſide, but the Tears flow copiouſly for a long Time, the Men are threatned with an Everſion of the Eye-lids, and Women and Children with an Ulceration. If blear-eyed

Perſons are ſeized with a Looſeneſs, it is good. If they have a long and continued Head-ach, they are threatned with a future Blindneſs. Sometimes an Ophthalmy paſſes from one Eye into the other, as it were by Contagion, and this is thought to be no bad Omen.

We will now deſcend from the Eyes to the Noſtrils. From hence the Blood ſometimes flows with ſuch Violence, as almoſt to kill the Perſon by the Evacuation. The Body turns either pale, livid, or greeniſh, the Extremities grow vehemently cold, and a Syncope ariſes, the Harbinger of approaching Death. Thoſe who are often troubled with an Hæmorrhage at the Noſe, are generally attended either with a tumid Spleen, Head-ach, or Dimneſs and Suffuſion of the Eyes. Children who have been ſubject to this Flux of Blood, if it ceaſes as they grow up, muſt neceſſarily be affected either with ſome Violent Ulceration on the Joints, or elſe weakned by ſome violent Diſeaſe. If the Fauces are loaded with Blood both Day and Night, and yet no Pain in the Head or Præcordia, and neither Cough, Vomiting, or Fever hath preceded, there is an Ulcer either in the Noſe or the Fauces. If the Blood break out on the contrary Side it is bad: As if it flow from the right Noſtril in a large Spleen; or from the left in an Inflammation of the Liver.

I SHALL now ſpeak of the Diſeaſes incident to the Fauces, and firſt, of the Swelling of the Tonſils, which by rendering the Swallowing troubleſom, is more terrible than dangerous. The Tumour is inwardly obvious to any one who inſpects or touches it, and by its Bulk hinders the Perſon from ſwallowing either his Drink or Saliva. There is a Kind of Redneſs in the Place, but no Burning. —— Oftentimes this Tumour inflames, and then there is Pain and Heat, and a greater Redneſs and Thirſt, nothing of which is obſerved in the former Diſorder. When the Suppuration is finiſhed and broke, the Matter is thrown upon the Mouth and Fauces, and a ſordid Ulcer ariſes, whoſe putrid Scent likewiſe taints the Breath.

THE Uvula likewiſe, when it is either relaxed, or (which rarely happens) is inflamed, is not unworthy our Regard. It hangs down from the Extremity of the Palate, and falls upon the Fauces and Head of the Gula. Wherefore it affects theſe Parts with a certain Titillation, and occaſions a Dread of Suffocation. The Inflammation increaſing, its lower Part enlarges, the upper one is ſlender; wherefore *Hippocrates* gave it the Name of the Σταφυλὴ, that is, the Grape. This Diſtemper ſeldom kills any one, if it be well taken Care of in the Beginning. *Hippocrates* ſays, that the Uvula ſwelled and red, as I have mentioned, is with great Danger cut off; for from hence a greater Inflammation, and violent Efflux of

Blood enſues, eſpecially if the Body be Plethorick. Thoſe Perſons who have the Uvula cut out, are liable to Diſorders in the Lungs, and generally die tabid.

THE next Diſtemper to be conſidered is the Quinſy, by the *Greeks called* Συνάγχη. In this Diſorder the Fauces, that is, the extreme Parts of the Throat and Gullet, thro' which the Food and Breath paſs, are inflamed: Upon this Account the Reſpiration grows difficult, and the Deglutition troubleſome, ſo that the Drink returns oftentimes thro' the Noſtrils: To theſe are added a moſt acute Pain, Tumour, Redneſs, Heat, Fever, and a great Deſire of drawing the cold Air. The Diſeaſe is very mild, when there is only a Tumour, and Redneſs in the Neck and its Muſcles, and the other Symptoms do not ſucceed. It is ſomething more ſevere, when there is a Tumour, Heat, Redneſs, and Pain, both on theſe Parts, and the inner Fauces. It is ſtill more violent, when nothing of this appears outwardly, and the Diſeaſe lies wholly within; and when, (the Tongue being ſtrongly depreſſed) there is a Species of Redneſs and Tumour, with a moſt vehement Pain, and a great Fear of being ſtrangled. Farther that Quinſy is fatal, and moſt of all to be dreaded, and kills immediately, which does not exhibit any conſpicuous Tumour or Redneſs, either on the Neck or on the Fauces, but is yet attended with moſt exquiſite Pain, vehement Fever, and an almoſt im-

immediate Suffocation. Then the Eyes are turned upwards, redden, and become prominent, as in thoſe People who are ſtrangled; the Voice being impeded utters nothing diſtinctly, but becomes ſmall, like that of young Puppies; the Mouth gapes, and is very covetous of cool Air, and a frothy Saliva flows from it; the Tongue is thruſt out, and is frequently agitated, as in Horſes that are out of Breath with hard Labour; the Liquor which is given them to drink returns thro' the Noſe; the Lips grow livid, and the Neck ſtiff and contracted; the Patient is entirely reſtleſs, often jumps out of Bed, lies very uneaſy upon his Back, much more commodiouſly with his Neck and Head upright; he ſees and hears obtuſely, and by Reaſon of the Suffocation he does not underſtand what he hears, ſays and does: And at length oppreſſed with the Strangulation and Syncope, periſhes; which has been obſerved by learned Men to happen to ſome Perſons in eighteen Hours after the Coming on of the Diſtemper, the Underſtanding and Senſes remaining entire. But in Quinſies the Patient always expires either on the firſt, ſecond, or at moſt on the fourth Day. The Signs of Recovery in a Quinſy, are an eaſy Reſpiration, and an eaſy Swallowing of the Saliva and Drink, no violent Fever, Reſt, Sleep, Alleviation of the Pain, and the other Symptoms contrary to thoſe which have been before deſcrib'd. It is an equally good Sign, if the Tumour

and

and Redneſs be fixed chiefly outwardly on the Neck and Cheſt; for then we may know that the Diſtemper is thrown outwards. And it is pernicious, if the Tumours ſubſide without any good Signs, or any manifeſt Cauſe; and if a Pain ariſes in the Hypocondria without any Criſis, when the Strength is infirm, and the Body torpid; for then Death ſteals on the Patient unobſerved, tho' he may imagine himſelf to be in a good State of Health. All Symptoms are fatal in this Diſeaſe, which are not attened with Pain, nor an evident Tumour (as I have before mentioned) either on the Neck or Fauces. But if there be a Tumour and Redneſs on the Fauces, great Danger is portended: But the Diſeaſe will be the longer, the greater the Redneſs is. The Diſtemper is likewiſe protracted, when both the Fauces, Neck, and Breaſt are red together: Which Caſe generally ends in a Recovery, if ſo be, the Redneſs does not turn in, which is then to be dreaded, when it vaniſhes of a ſudden, and the Cheſt grows heavy, and the Patient begins to breathe with greater Difficulty. Then indeed the Diſorder turns in upon the Lungs, brings on a Delirium, occaſions a fluctuating Pulſe, and deſtroys the Patient within ſeven Days, or certainly ſuppurates in ſome Part or other, unleſs at Times the Phlegm be thrown up by Coughing. A Suppuration in the Thorax from a preceding Quinſy, is thus known: The Pain of the Fauces ſuddenly ceaſes without any certain

tain Reaſon, and the Fever remits much, an unuſual Weight is felt in the Cheſt near the Diaphragm, with a violent Cough, and generally dry without any Expectoration. Another Kind of Fever ariſes inordinate, languid, and hectick. When the Redneſs ſuddenly vaniſhes in a Quinſy, and that not on a critical Day, and that neither the Swelling comes outwards, nor the Pus is diſcharged by Coughing, but the Patient ſeems quiet, and free from Pain, we may then know, that either Death is at Hand, or that the Redneſs will return: It is likewiſe dangerous, when the concocted Matter is not ſoon expectorated, and when it is raiſed with great Difficulty, and is viſcid, thick or very white. It is equally bad if it be dry, exciting a great Cough and Pain of the Side, and if it throws up any Part of Liquor in drinking by occaſioning a Cough. All Quinſies ariſing on the Criſis of another Diſtemper, are fatal. But there is another Kind of Quinſy likewiſe obſerved, which is called a Baſtard one, and is not ranked among the acute Diſeaſes. This ariſing from a cold Humour, is free from a Fever, and not attended with either Redneſs, Burning, or Fever, but yet with ſome Degree of Pain. This Diſorder as it is longer, ſo is it uſually more ſafe.

The Membranes of the Brain being wounded, a bilious Vomiting enſues, as likewiſe a violent Pain, which increaſes by detaining the Breath, and drawing the Jaws together. There is an Effuſion of Blood at the Noſtrils and

and ſometimes the Ears: In ſome the Countenance appears fierce, in others the Eyes rowl about as if relaxed, and the Senſes are wholly ſtupified: and not a few are ſeized with a diſtenſion of the Nerves. After this an Inflammation ariſing, a Fever enſues, and then a Delirium, in which many tear the Bandages off their Heads, and expoſe the Wound to the cold Air, all of them Preſages of ſudden Death. But if the Brain itſelf be wounded (eſpecially if it happens at the full Moon) all the Symptoms already related, are more violent, and a vehement Delirium ariſes, either on the third or on the fifth Day. Beſides, a Portion of the Brain itſelf ſometimes work out. And if the Weapon has penetrated as far as the Ventricles of the Brain, eſpecially thro' the Eyes, the Perſon is immediately deprived of his Life. No Perſon whoſe Brain is wounded, can poſſibly recover. When the Head has been wounded on any other Part, it is judged beſt, when there is no Fever, and there has been no Flux of Blood either from the Ears, Noſtrils, or the Mouth, as alſo no Inflammation or Pain. But if any of theſe ſhould happen, it is much the ſafeſt if they happen at the very firſt, and do not continue for any Time. It is good likewiſe if in the acute Pains Inflammations appear, and Pus be carried off in the Eruptions of Blood. But it is worſt of all, if a Coma or Delirium ſupervene; and likewiſe fatal, if there begins to be a Fever on the

the fourth, ſeventh or eleventh Day. Wherefore moſt of the Perſons periſh on the eleventh Day, if the Fever began on the fourth; fourteenth or ſeventeenth, if on the ſeventh; if on the eleventh, the Patient dies on the twentieth.

Uſeful Obſervations on Diſeaſes of the Thorax and Heart.

THE Thorax is environed with the Sides, within are the Heart and Lungs. Various Kinds of Diſeaſes are incident to theſe Parts, which I ſhall now deſcribe. I ſhall begin firſt with the Inflammation of the Sides, by the *Greeks* called Πλευρῖτις. It is diſtinguiſhed by theſe Signs: A pungent and tenſive Pain ſeizes the Side, and is extended one while to the Neck and Clavicles, another while to the Hypocondria, according to the Situation of the Diſtemper: There is an acute and continual Fever: the Reſpiration is difficult, frequent and ſmall: to theſe are added a Cough, at firſt dry, without any Expectoration; but after ſome Time it generally turns humid, and begins to bring ſomething off from the Parts affected, which at firſt is of a yellow Colour, afterwards red and bloody, and then as the Inflammation ripens it becomes purulent. The Pulſe is frequent, un-

unequal, hard, tenſive, and not very great, Good, ſudden, and eaſy Expectoration, ſhews that the Diſeaſe will be both ſhort and ſalutary. Wherefore this Diſtemper is in its Beginning, when nothing is thrown up from the affected Side, but only a thin Phlegm from the Lungs, or elſe ſomewhat thick, tenacious and round, and this with a very violent Cough.

It is called the Increment of the Diſeaſe, when what is expectorated begins in ſome Meaſure to be concocted, of a yellow Colour, and brought off in greater Quantities, and with more Eaſe, as alſo when from being liquid it becomes thicker, and from being bloody it turns whiter.

Its State is known from a copious Expectoration, which is white, light, and equal, eaſily raiſed, and greatly alleviating the Pain. The Declenſion is obſerved from the Abatement of the Pain, Expectoration, Fever and the like. But we muſt always obſerve the Marks of the expectorated Matter. That is indeed the beſt, which, as we have juſt mentioned, is found in the State of this Diſeaſe. The next is that, which is ſoon mixed with yellow. But if it does not come up yellow or unmixt immediately, but long after the Pain, and creates much Coughing, it is bad. If yellow, and not mixed with much Blood, it is in the Beginning ſalutary, but on the ſeventh Day, or after, it is leſs ſafe. If it be a little bloody from the Beginning,

ginning, it is not bad. But if it be either bloody or yellow without any Mixture, it is dangerous, but the latter is however worſe than the former. If it be white from crude Phlegm, as alſo viſcid and round, it is likewiſe unſerviceable. That is worſe, which is very pale with a greeniſh Caſt, as likewiſe that which is frothy, livid, or green. But that which is mucous, and ſoon concocted, namely within the fifth Day, is much ſafer. If it be very bloody, it is dangerous. In ſhort the Matter is this: All Expectoration is ſo much the worſe, the more the Colours are mingled and not divided. And yet nothing is worſe than that it ſhould be ſincere, be it either yellow, or bloody, or glutinous, or frothy. But if it be black, eſpecially if it be likewiſe fetid, this is the very worſt of all.

BUT all Expectoration is bad, which does not alleviate the Pain; that is beſt, which appeaſes it. If the Expectoration be purulent at the Beginning of this Diſeaſe, the Patient will die either on the third Day or on the fifth; but if he paſſes this Space of Time, and is not much recovered on the ſeventh, ninth or eleventh Day, he may then fall into a Suppuration. Tho' it is very rarely obſerved, that any one ſurvives the fourteenth Day, who has a purulent Spitting on the ſeventh, or before. In all Inflammations of the Side, the Pains are generally milder in the Day, than the Night. If a Pleuriſy turn into a Rigor or Diſtenſion of the

the Nerves, (that is into a Tetanus or Spaſmus) it is fatal. As alſo if it turn into an Inflammation of the Lungs, that is a Peripneumony. Likewiſe if the Matter aſcend up to the Brain, and there cauſe a Delirium and Phrenſy, it is deadly. The ſame Deſtruction attends this Diſtemper fixing in the Back. For then the Patient is ſeized with a Rigor, Fever, and very troubleſome Cough, the Back is pained, as if beat with Stripes, the Reſpiration is difficult, attended with a Sighing: Very little is coughed up, and that one while of a pale green, another while bloody: A Pain falls upon the Groin: On the third or fourth Day the Urine is bloody, and the whole Body is fatigued as on a Journey; Death ſeizes the Patient on the fifth, or certainly on the ſeventh Day, which Day if the Diſtemper exceeds, which yet rarely happens, the Patient recovers. All Pleuriſies are fatal to old Men and pregnant Women, as likewiſe to thoſe Perſons, to whom it recurs a ſecond or third Time. And this Diſtemper kills, either from the Violence of the Symptoms, or Suffocation, or Tranſlation of the Matter to another Place, whence enſues a Peripneumony, Tabes, Syncope, or Phrenſy. I have ſhewn in what Circumſtances it is certain Death, I ſhall now ſhew in which it is very dangerous. Wherefore if there be a great Wheezing with much Matter in the Cheſt, there is a ſorrowful Countenance, and the Eyes are tinged of a yellow Colour,

Colour, this portends the Life to be in great Danger. It is alſo dangerous, if there be no Spitting, and nothing coughed up out of the Lungs, but it ſhould grow tough, and obſtruct the Wind-Pipe. It is equally bad, if there has been a laudable Expectoration, and it ſhould entirely go off, before the Weight in the Breaſt, and the Pain be removed. There is likewiſe no ſmall Danger, when the Thorax is vehemently hot, and the extreme Parts very cold; as alſo if the Pain encreaſe when the Patient lies either on the infirm or ſound Side, ſo that he is obliged to lie upon his Back: Alſo if a Looſeneſs come on long after the Beginning of the Diſeaſe, when the Strength is infirm, whereby neither the Inquietude of the Body, nor the Breath is relieved.

The Danger is equally great, if the Pain lie either on the upper or poſterior Part of the Body, or if it be dry and without Spitting: Unleſs it be ſo moderate, as that there ſeems to be but little Matter to be purged off. There is likewiſe more Danger on the left Side, than on the right; but on the left the Diſtemper ſooner comes to Maturity, and is ſolved. But all the Danger of this Diſeaſe, or at leaſt the greateſt, is uſually on the ſeventh, or ninth Day. And all theſe Symptoms carry ſomething of Danger with them. But the Indications of Safety are an eaſy Expectoration immediately from the firſt Day, and that what is expectorated be mixed with yel-

yellow, and that the Pain be alleviated by it, that the Patient easily bears the Distemper, that he breathes freely, and is free from any Drought or Wheezing: Add to this that his Sleep, Sweat, Urine, and Stools be orderly; and lastly, that the whole Body be tempered with an equal Heat, and soft.

When the pleuritick Pains do not abate, either by Bleeding, Expectoration, Diet, Fomentations, or Medicines, and yet the Patient does not seem to be in Danger of Death, we may then expect either a Suppuration or an Abscess. Which Case will certainly happen, if the Distemper be not carried off by Spitting, within forty Days. But if a Suppuration arise, and is wholly discharged by Expectoration, within forty Days after its Breaking, the Patient recovers: If it is not discharged, a Tabes ensues. If any Suppuration arise, while the Spitting is yet bilious, whether it be purely bilious, or mixed with Pus, it threatens very great Danger, especially if the Suppuration begin with this Kind of Spitting, after the Disease hath reached the seventh Day. For then there is Danger (unless some kind Accident intervene) that Death will ensue on the fourteenth Day. But it may not be amiss to propose those Signs, by which any may know that the Suppuration begins. The Patient raises nothing, or at least very little by Coughing, yet with a great Inclination thereto; he is likewise attended with a Fever; his Pains grow,

grow severer, with a new and unusual Heavineſs, and this more especially in the Night-time: His Breathing is very difficult. The Veins under the Tongue grow white, the Cheeks redden; his Appetite is loſt, his Thirſt increaſes, together with a continual Watching, and Sweat about the Clavicles and Neck. But if by chance the Diſtemper grows inveterate, the Eyes alſo become hollow, and the Nails on the Hands crooked, and the Ends of the Fingers grow cold: Laſtly, a Sweat oftentimes ariſes over the whole Body, and a Swelling on the Feet. That which ſuppurates, raiſes an Inflammation, and a Pain on that Part which it affects, and is much hotter than the adjacent Parts, and if it falls upon any firm Part, it ſeems to load the Patient as with a Weight. The *Pus* being already formed, the Fever and Pain are ſomewhat abated, and oftentimes ceaſe, according to the Judgment of the Senſes; but the Weight upon the Part increaſes, the Cough is vehement and dry, tho' there is ſometimes ſomething of Moiſture with it, whereby the Patient ſeems at Times to be relieved.

But when the Abſceſs being turgid breaks, the Patient is ſeized with a Horror, violent Fever, Tremor at the Heart, and his Strength ſeems as it were ſunk, the Reſpiration is weak, and he faulters in his Speech, being interrupted by his Breath: The Pulſe is weak, ſlow and rare. But theſe, tho' they ſeem

terrible, ought not preſently to frighten us, ſince they are occaſioned by the breaking of the Abſceſs, and not the Subverſion of the Strength; eſpecially if there appear any good Signs in the Spitting and the like. For it generally follows that this Diſorder ſome little Time after, ceaſes of itſelf. The Minute the Abſceſs is broke, ſomething appears to flow into the Bottom of the Thorax, as the Body is variouſly reclined; and from hence it throws up Pus, ſometimes pure, and ſometimes feculent. The Eruptions ſeldom happen on the fourteenth Day after the Suppuration is begun, very rarely on the ſeventh, but for the moſt Part on the twentieth, ſome indeed not before the fortieth, and others again not till the ſixtieth. But we muſt reckon from that Day, on which the Patient felt a Weight on the Part affected, and began to have the other Signs of Suppuration. Theſe Signs (among which the chief and moſt powerful is the Fever, after this, a difficult Reſpiration and Pains) by how much the more terrible they appear, ſo much the quicker will be the Eruption, and the milder they are, ſo much the ſlower will this be. Wherefore it generally follows, that if the Pain, Cough, and Difficulty of Breathing be very violent from the Beginning, the Abſceſs will break about the twentieth Day, or before. Rarely indeed, but yet ſometimes, both the Abſceſs of the Side has been obſerved to be purged off by the Inteſtines and Stools

Stools, and that of the Lungs thro' the Bladder with the Urine. But very often and almoſt perpetually the Abceſs exonerates itſelf into the Breaſt, whereby the Matter is thrown up by Coughing within forty Days, and if this doesnot happen, a Tabes, as I have lately obſerved, enſues. That Perſon is generally out of Danger from the Breaking of the Abſceſs, whoſe Fever abates on the very Day the Eruption is made, and whoſe Appetite begins to return; whoſe Stools are ſoft, compact and well figured; and in whom the *Pus* eaſily riſes, white, light, ſcentleſs, entirely of one Colour, and free from all Phlegm. On the contrary that Perſon periſhes, whoſe Fever does not leave him, or if it may ſeem to have left him, ſhould yet attack him again with more Violence; in like Manner if his Appetite be loſt, and his Drought remain; alſo if his Stools be intirely looſe, and the *Pus* which he coughs up be of a pale green, or livid, phlegmatick or frothy. Every Kind of *Pus*, if the Strength be infirm, in very great Quantity is mortal. That Kind is alſo to be equally dreaded, which ſtains the Probe after the ſame Manner as Fire does. Thus have we traced the genuine Inflammation of the Side, which ariſes from the Blood, and that for the moſt Part bilious, between the Ribs, and the Membrane ſurrounding them, or elſe in the intercoſtal Muſcles. But that Pleuriſy is not genuine like this, but ſpurious, which ariſing either from a Defluxion, or Flatulences, or

any other Cauſe ſeizes the exterior Muſcles of the Thorax, tho' there be a true Inflammation as in the former Caſe. In this Diſtemper all the Symptoms are milder than in a true Inflammation of the Side. But the Pain increaſes upon any external Preſſure, and the Patient cannot lie ſo eaſily on the ſound Part as on that which is affected: The Pulſe tho' frequent and unequal, is yet by no Means (ſince the Membrane is not affected) either tenſe or hard. Farther, an acute Pain of the Side, both from a Defluxion of Phlegm, as alſo from Flatulences, is generally free from a Fever. The Flatus excites the moſt exquiſite Pain, which is alleviated by Fomentations and Frictions, and is often diſcuſſed. This Pain is not fixed in any particular Place, but generally flies about thro' the Side. And when a Defluxion of cold Humour has occaſioned the Diſorder, an evident Cauſe has preceded. For firſt there has been a Pain either in the Neck or in the Scapulæ, from whence the Matter being transferred to the external Muſcles of the Breaſt, excites here that Pain of the Side which I am now ſpeaking of, and which is increaſed by Preſſure, but does not yield to Fomentations, like that which ariſes from Flatulency. And it has often been obſerved, that from theſe Pains occaſioned either by Defluxions or Flatulences, if they have been either too violent or continued too long, a genuine Pleuriſy has ariſen. The Side may likewiſe be pain-

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ed from a Swelling either of the Liver or Spleen, the Membranes being drawn down by the Weight of the Viscera. But these Disorders are to be distinguished and considered by their proper Signs, in their own Place.

From the Ribs I proceed to the Lungs. An Inflammation upon this Part is by the *Greeks* called Περιπνευμονία, which is known by these Signs: There is an acute and continued Fever, the Respiration is difficult, frequent and hot, as also a Cough, Weight, and Distension of the Hypocondria and the whole Chest, and that very often without any Pain: The Cheeks redden and swell, sometimes a Kind of fiery Heat rises up to them, from the lower Part of the Body: The Nose grows flat, the Veins of the Temples grow big, the Eyes become eminent: The Tongue is dry, first of a yellow red, afterwards in the Progress of the Distemper, it grows thick and black, at last it becomes chopped, and cleaves to the Finger, upon being applied to it: Some are likewise seized with a Pain between the Scapulæ, a great Loathing of Food, and Craving of cold Water and fresh Air: The Pulse is fluctuating, soft, great, quick, seldom with two Pulsations, but oftentimes intermittent and intercurrent. If any Thing is thrown up by Coughing, it is spumous, and one while bloody, another while yellow. The Patient chooses to lie on his Back, for being reclined on his Side, he ima-

gines he ſhall be ſuffocated. When the Diſemper grows more violent, a continual Watching ariſes, and alſo comatoſe but yet very ſhort Sleeps, the Spitting is very bloody and florid, the extreme Parts begin to grow cold, and the Nails turn livid and crooked. In this Caſe if the Blood flow plentifully from the Noſtrils, and there be many looſe, bilious, and frothy Stools, we may expect a perfect Recovery: But if Things be otherwiſe, we cannot: For on the fourth Day, or at moſt on the ſeventh, certain Death enſues. And generally thoſe Signs which are either mild or ſevere in an Inflammation of the Side, are the ſame in that of the Lungs. However, the Diſtemper of the Lungs is attended with more Danger than Pain, and as it is at all Times fatal, ſo is it then more eſpecially, when it occaſions a Pleuriſy. If it take its Riſe from a Quinſy, it generally kills within ſeven Days, or elſe paſſes into a Tabes. If Defluxions and Sneezings both precede and follow this Diſeaſe, it is dangerous, and much more ſo if there be herewithal any ſudden Stools. As the Patient's deſiring to ſit erect, and hating all lying down, is bad in acute Diſeaſes, much more is it ſo in Inflammations of the Lungs and Side. But that Diſorder is judged to be the ſafeſt, which is ſooneſt diſcharged by a laudable Expectoration. Neither ought we to be terrified in the Beginning, if the Spitting be tinged with a reddiſh Colour or Blood, if ſo be it is eaſily

ſily hawked up. Beſides, if the Pain be eaſed by the Expectoration, altho' purulent, and the Patient notwithſtanding breathes freely, expectorates, and ſuſtains the Diſtemper eaſily, he may poſſibly recover. In the ſame Manner if an Abſceſs ariſe behind the Ears, and come to a Suppuration and Maturity; or if it ariſe on the lower Parts of the Body, and turn into a Fiſtula, we may entertain great Hopes of Life. But if there be no reaſonable Expectoration, and the Fever and Pain continue; if much Bile has not been voided by Stool, and there has been no large Diſcharge of Urine with much Sediment, however without any deadly Signs, we may conclude that a Suppuration is forming. In which Caſe the Patient recovers, if the Matter (which rarely happens) being abſorbed by the Veins ſhould paſs off by Urine or Stool, or if (which more frequently occurs) the Abſceſs being broke, the *Pus* falls into the Cavity of the Thorax, and is thence entirely expectorated in forty Days. And unleſs this Diſcharge is made, one of theſe two Things muſt neceſſarily follow, either that the Patient, the Lungs being ulcerated, grow Tabid, or elſe that he be ſuddenly ſuffocated, by the *Pus* ruſhing in great Quantities upon the Organs of Reſpiration: When this happens, the Reſpiration becomes every Day more difficult, and the Patient wheezes in drawing his Breath, and being at laſt choaked up with Phlegm, he expires. But

If the Abſceſs will not break after any conſiderable Time, either ſpontaneouſly, or by the Aſſiſtance of Medicine, the Patient being weakned with violent Pain, Defect of Nouriſhment, Cough and Fever, is conſumed. He likewiſe as certainly periſhes, if being thus waſted, the Abſceſs ſhould break when he is reclined on his Bed. But if what is ſuppurated breaks in a very ſhort Time, totally maturated, and the greateſt Part of it falls upon the Diaphragm, the Patient ſeems immediately to be relieved: And from hence, when the *Pus* is intirely thrown up by Coughing, and the Ventricle in which it lay, is dryed and healed health returns; but if the Diſorder continues long and the Patient being weak, cannot expectorate, we may know that he will certainly dye: Likewiſe if a Cauſtick be then applied, or an Inciſion made on the Part, the Patient is indeed better for the preſent, but yet nevetrheleſs after ſome Time he expires. Suppurations ariſing from Diſeaſes of the Lungs, generally carry off old Perſons; others, thoſe who are younger.

FARTHER, the Lungs are ſometimes ſeized with an Eryſipelas. At this Time a very burning Fever ariſes, and an acute Pain both before and behind, eſpecially about the Spine, tho' the Cheſt is not ſo much affected with a Streightneſs and Weight; the Patient cannot breathe but with his Neck erect, and by Reaſon of the Heat expands his Noſtrils, like a Horſe in running, and thruſts his Tongue out like a Dog that is hot: There

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is likewiſe a Vomiting one while of bloody, another while of livid Matter; at other Times this brings up Bile and Phlegm: There is likewiſe (which is the moſt familiar Sign of this Diſeaſe) a frequent Swooning: The Cough is either dry, or elſe throws up a yellow Matter tinged with ſome Blood: This Diſorder commonly kills the Perſon, and that very ſpeedily. The Patient may eſcape, if the Eryſipelas, leaving the inner Parts, be thrown outwards upon the Body.

We muſt not omit that Diſorder of the Lungs, which ariſing from a thin, acrid, and copious Diſtillation from the Head, falls upon this Part. Hence a great Heat and a Fever is excited, which Fever being ſlow, gradually conſumes the Perſon: To this are added both a Cough and difficult Reſpiration, yet without any Ulcer of the Lungs, or Spitting of Blood.

Sometimes alſo the Lungs are affected with crude Tubercles. At firſt the Pain is ſmall, the Cough is dry with a large Inſpiration, but the Breath ſomewhat Difficult; Heats likewiſe enſue, and ſome ſlight Pains ariſe both before and behind. And generally thoſe Signs appear here which are obſerved in an Aſthma, except that the crude Tubercle in the Lungs ſenſibly increaſes without any preceding Sign of a Defluxion, and that at this Time the Reſpiration is difficult, withour any Wheezing. If this Diſorder be deeply fixed in the Lungs, the Pulſe is various, unequal, in-

intermittent, or else intercurrent, such as was observed in *Antipater* the Physician. At this Time indeed, and not without Cause (since the Disorder is fixed in the *Arteriæ Pulmonales* nearer the Heart) there usually happen Swoonings and a Palpitation of the Heart. Wherefore this Illness, when it is so far advanced, generally proves fatal. But a Recovery may be expected, if the Disorder is seated on the *Aspera Arteria*, and is soon ripened and broke; as also if the *Pus* be wholly expectorated, and the Ventricle, wherein it was contained, is intirely dryed up, and remains without any Ulcer. And if all this does not happen, the Patient after some Time dies of a Consumption.

The *Vomica Pulmonis* is not easily discerned, and often deceives us with the Hopes of a perfect Recovery. This is a small Abscess fixed in some Part of the Lungs, and firmly inclosed in a little Membrane. This Disorder generally seizes those who are tabid, as also those in whose Lungs a Vein has been either opened or broke. The Breath stinks, like Carrion before the *Vomica* breaks: Sometimes Blood is coughed up, the Body is always heavy, and the Cough hard and very long, which is sometimes followed by an Expectoration of the Vomica: When this happens a vehement Fever ensues, with a Spitting of Blood, and a violent Perturbation of the Body, which may yet be followed by a perfect Recovery. Oftentimes a Vomi-

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ca, by breaking ſuddenly and falling upon the Heart, brings ſpeedy and unexpected Death.

VARIOUS Accidents and various Dangers may attend a Spitting of Blood (which Diſeaſe is by the *Greeks* termed Αἱμοπτόησις) eſpecially if the Blood be diſcharged from the Lungs or Breaſt. Wherefore we muſt ſee whether it may alſo be brought from any other Part or not. It is very probable that this deſcends from the Head, when there is a Titillation on the Palate, with a frequent Hawking: When there is an Inclination to cough, yet without much Coughing, the Blood being fallen on the Throat, and thrown up again by Hawking: Alſo if it fall immediately upon the Tongue, blackiſh, and in a pretty large Quantity, as alſo if it be mixed with Phlegm and *Pus*, Part whereof is ſometimes blown through the Noſe along with the Mucus: And generally a Pain and Heavineſs of the Head, preceed this Flux of Blood, and are relieved by it. That Blood which flows from the Fauces and Uvula, is thrown out by Hawking; that from the Mouth itſelf, by ſimple Spitting; that which comes from the Stomach is thrown up by Vomiting, that from the Throat by a ſmall Cough, that from the Thorax and Lungs by a very violent Cough: When it proceeds from the Subſtance of the Ventricle, there is not much vomited up. It is uſually more abundant, which is carried from the Liver or

Spleen

Spleen into the Stomach, and is likewiſe frothy, if either of theſe Viſcera is ſeized with an Inflammation; and this as well here as in any acute Fever is fatal. If the Blood be thrown up frothy, thin and florid, at different Times, by Coughing, and without any Pain, we may conclude that it proceeds from the Lungs. But if it be cauſed by the Burſting of a Vein, and that a large one, the Blood is in a Manner vomited up, and that in ſuch Quantities, as ſometimes to fill ſeveral Baſons. This Caſe is indeed attended with many Dangers; for it may either deſtroy the Perſon by the too exceſſive Diſcharge; or if it be inwardly confined, it may likewiſe ſuffocate him; or elſe by oppreſſing the Heart with its Weight, and occaſioning an Syncope, it may preſently kill him. And tho' theſe ſhould not at all happen, and Life ſhould remain, yet it creates (unleſs timely relieved) very violent and incurable Ulcers in the Lungs. And tho' when the Eruption is recent, it ſeems not capable of being cured, it has yet been found that not a few have been ſaved, to whom a Cure was applied on the firſt three Days. But when the Diſeaſe is grown inveterate, all Medicine is uſeleſs. The Burſting of a ſmall Vein is attended with a leſs Profuſion of Blood, as alſo with leſs Danger. When this Diſeaſe is contracted from an Eroſion, evident Cauſes and Signs of it have preceded: Such as an acrid Defluxion, Fever, and a Spitting, either purulent, or elſe like

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the Water wherein the Flesh of Animals newly killed has been washed: Add to this, that a putrified Portion of the Lungs is sometimes thrown up by Coughing: The Blood itself is gradually mixed with the Spittle, and that in small Quantities, when only the Substance of the Lungs is eroded, but is much greater when a Vein is eat through; and if this be large, as I just now observed, the Blood will flow very abundantly. At this Time, what is spit up, has both little Colour and Smell. We may thus know when the Erosion is large: At first the Blood is coughed up in small Quantities, and at small Intervals, afterwards it comes up in larger Quantities; if so be the Patient has received no external Injury from a Fall, violent Exercise, or the like. But when neither the Lungs are corroded, nor a Pulmonary Vein eaten thro', but the Blood is discharged by an Aperture therein (by the *Greeks* called Ἀνασόμωσις) it is at first thrown up in a small Quantity (which does not happen when the Vein is burst) and is likewise thicker and redder than that which proceeds from a Wound or Erosion of the Lungs. For this is thin, yellowish, florid, spumous, and very much like that which is in the Arteries. And it generally happens so, that a Repletion and Heaviness of Body precede the Opening of the Vein, without any concomitant Pain, and that an Agility succeeds the Evacuation of the Blood. For this Evacuation often relieves Women, who have the Menses suppressed, and

and that without any Danger either of Ulcer or Tabes. All Blood which is thrown out of the Lungs, is, as I have juſt now obſerved, frothy, and as it is raiſed with much Coughing, ſo it is free from all Pain. That which comes from the *Aſpera Arteria*, tho' it be likewiſe ſometimes frothy, yet is not without Pain, and but in ſmall Quantities, and is raiſed with little Coughing, but great Hawking. There is much and vehement Coughing, if the Blood be drawn from the inferior Parts of the Thorax, as in an Inflammation of the Side and Lungs; but leſs, if from the upper. That Blood which comes from the Subſtance of the Cheſt, is blackiſh, thick, and grumous with but little Froth, nor in any great Quantity, and comes up gradually, being ſollicited by the Vehemence of the Cough: The Part which is affected is pained, which Pain likewiſe increaſes during Sleep. This Caſe is leſs dangerous than when the Blood is voided from the Lungs; for the Cure is more expeditious; but if this ſhould not ſucceed, the Ulcer formed thereby is not ſo malignant, as one in the Lungs, which brings on a Tabes, Hectick Fevers, Maraſmus and Death. But black and grumous Blood ejected by Coughing, does not always ſeem to proceed from the Thorax. For when it is newly fallen from the Noſtrils upon the Fauces, and from thence upon the Lungs, it may here form itſelf into *Grumi*. Whoever has a Spitting of Blood, generally increaſes it

it by lying on the infirm Side. When a Vein has been inwardly wounded, and is well-united again, it is often burſt again from the ſame Cauſes that it was at firſt: And when this happens, the Blood guſhes out, and that oftentimes in ſuch Quantities as if it were vomited up, whereby it immediately ſtrangles the Perſon: If it does not, it putrifies and turns into much thick *Pus*, whence the Patient at laſt dies tabid. For *Hippocrates* well obſerves, that if the Blood be thrown upon the upper Ventricle, it ought neceſſarily to be turned into *Pus*. There is no Room for Medicine, if the *Hæmoptoe* ariſe from an Eroſion of the Lungs; but if from the Burſting of a Vein, and proper Remedies have been immediately applied, while the Wound was yet recent, and free from any Inflammation and *Pus*, many Perſons have been obſerved to recover. For a ſimple Eruption of the Vein (if the Reſt of the Lungs be ſound) cannot occaſion a Tabes. And when it does, the Lungs are affected by the Blood's flowing into it from the broken Vein. But a Spitting of Blood, if it continue long, always turns into a Tabes. Wherefore *Hippocrates* well obſerves, that after an *Hæmoptoe* a purulent Spitting enſues.

We muſt in the next Place conſider that Suppuration which the *Greeks* call Ἔμπυημα. It is diſtinguiſhed by theſe Signs. The Patient is ſeized with a continued, languid, uncertain, dry, and truly hectick Fever, which

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is milder in the Day, and severer at Night: As also with a frequent and violent Cough, with which however nothing is raised: There is likewise a profuse Sweat all over the Body, after which the Patient is sometimes seized with a Horror. Various Parts of the Chest are likewise affected with a Pain; the Respiration is frequent and very much impeded, so that the Speech becomes quick, and often interrupted, Wherefore the Nostrils are closed in drawing the Breath, whereby a Wheezing is occasioned. Add to this, that the Cheeks are red, the Hands and Feet hot, and the Nails thereon grow crooked, and the Ends of the Fingers (when the Distemper is much advanced) turn pale. There is always a Loathing of Food, and if any be taken in, the Body begins to be heavier. The Cough, as I just now observed; is dry, unless, when any Suppuration has broke, it becomes moist, and throws up *Pus* one while pure, and another while feculent. It is likewise generally such, when any *Pus* is inwardly collected from an Ulcer of the Lungs. The Pulse when the Suppuration begins is unequal. When the Suppuration is broke it is broader, slower, rarer, and more languid. When in this Disease Things are come to Extremes, the whole Body falls into a profuse Sweat; Tumours arise in the Feet, like those which are occasioned by a Dropsy; or else Pustules break out all over the Body. That Suppuration which arises from a Quin-

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ſy or an Inflammation of the Lungs, generally ſeizes both Sinuſes of the Cheſt, which are divided by the Mediaſtinum. But that which is occaſioned by an Inflammation on the Side, ſeizes that Region only which is affected. But ſince we have abundantly conſidered theſe Suppurations in their proper Places, I ſhall now proceed to thoſe, which may likewiſe ariſe from other Cauſes. Wherefore if there has been a Defluxion of Rheum from the Head, and it has given Riſe to this Diſorder, it falls firſt upon the Lungs, ſcarce perceptibly, with a ſlight Cough, and a Spitting thin and unuſually ſalt; and ſometimes with a ſmall Degree of Heat. After ſome Time the Lungs are exaſperated, and ulcerated with the inherent and putrid Phlegm; there is alſo a Weight on the Cheſt, and a Pain both before and behind; and now the Body grows hotter, and begins to be totally impotent and extenuated. The Breath is likewiſe drawn with a Wheezing as thro' a Reed. And indeed the more inveterate the Diſtemper grows, the *Pus* that is raiſed is ſo much the purer, the Fever increaſes, and the Cough and Drought become more violent. Sometimes there is a great Deſire of Food, at other Times of racy Wine. And the Patient often falls into a profuſe Sweat. At length the Feet ſwell, the Stools are irregular, the Spitting ſuppreſt, and the Perſon dies

THEY that are thus affected, generally die corrupted within the Year. However, in this Case we may expect perfect Recovery, if the Phlegm be spit out, before it be turned into *Pus*; or if (as it often happens) it be inwardly maturated before the twentieth Day, and then discharged by Spitting. For unless these happen, either a Tabes, with an Ulceration of the Lungs ensues, if the Humour be acrid; or certainly an Asthma, if it be sluggish, and without any Acrimony. Farther it likewise often happens, that the Phlegm falling from the Head to the Side, and being there included in its Membranes, agglutinates and suppurates. In which Case the Side, for the most Part, burns; the Respiration is large, the Voice is hoarse, and the Chest somewhat incurvated on that Part of the Body where the Distemper is fixed: At length the Feet and Knees swell; sometimes the Patient is seized with a Horror, and often with profuse Sweats; he is always weak, and is one while hot, another while cold: His Nails are likewise contracted, and his Belly grows hot: And a Suffocation, or an intire Decay of Strength arising, Death ensues, unless the Abscess being broke long before these Signs are observed, the *Pus* is wholly expectorated.

BUT if there be an Ulceration of the Lungs, and a collection of *Pus* from the Bursting of a Vein, it is accompanied with these Signs.

Signs. Part of the Blood is immediately ſpit out, and Part of it being thrown upon the Lungs, putrifies and is converted into *Pus*. For after the Hæmoptoe, there is, as I have already obſerved, a purulent Spitting. After ſome time, the *Pus* is one while coughed up pure, another while mixed with Blood. But if it be a bigger and fuller vein, the Blood is ſometimes poured forth in great Quantities, and from hence a thick *Pus* is hawked up. Young Perſons are more liable to this Diſorder, more grievouſly affected, and ſooner carried off than older ones: Tho' both of them muſt equally ſink under it, eſpecially if it be of long Standing, and the Head begins to be affected, and the Body to be emaciated. The like Suppuration may be made from a Wound in any Part of the Thorax. For the Blood falling into the Vacuities of the Cheſt muſt be turned into *Pus*. The ſame Inconvenience may be likewiſe reaſonably apprehended from a Wound in the Breaſt, which is only healed outwardly and not within. Now and then the Veins of the Lungs and Sides are ſeized with certain Varices, and then there is firſt a Kind of acute Twitching, which is followed by a ſlight Pain and a dry Cough. When this Diſorder (as commonly happens) has been long neglected, a ſmall Quantity of Blood, and that black (if the Diſeaſe is from the Cheſt) is ſpit up: After that it comes up much purer and in larger Quantities, and

this is followed by *Pus* itſelf, whereby after ſome time the Patient is carried off, as has been ſhewn in the former Caſes. I ſhall now add this in general concerning Suppurations. When the Perſon who is thus affected is ſhook by the Cough, and a great Rattling is heard within him, we may conclude, that there is leſs *Pus* and that of a better Colour, and that the Reſpiration is pretty eaſy. But if there be no Noiſe or Rattling after the Abſceſs has been ſome Time broke, with a great Difficulty of Breathing, and the Nails grow livid, the Perſon is loaded with *Pus*, and in a ſhort Time periſhes. That Side which contains the *Pus* is both heavier and hotter: When the Patient lies on his ſound Side, the Cough, Streightneſs of Breath, and Weight is greater: but if he lye on the Side affected, then theſe are leſſened, the Perſon ſleeps better, and the Matter is better concocted and more plentifully diſcharged. The intermittent Fevers which follow the Suppuration are uſually attended with profuſe Sweats. If the Pains ſuppurate near the Hypocondria and Lungs, it is dangerous. And it generally follows, that when any long Tumour tends to a Suppuration, it is moſtly that which is fixed upon theſe Parts. If a Cauſtick be applied or an Inciſion made upon the Part affected, and the *Pus* be wholly diſcharged and that at once, Death inevitably enſues. But if being emitted gradually, and in moderate Quantities, it ſhould appear bloody, or livid,

livid, or green, or black, as alſo dirty and fœtid, it is equally pernicious, and the more ſo, if it be likewiſe attended with a Syncope. But if it be pure, white and equal, together with a pretty firm Strength, we may reaſonably hope for a Recovery. If the *Pus* in the Cheſt be ſollicited by much Coughing, and yet nothing thrown up, and the Patient enfeebled, it is fatal. If any one in this Diſeaſe ſhould appear to be much recovered, but ſhould yet hawk up any ill-ſcented Matter, which is particularly ſo when thrown upon live Coals, this Perſon will die of a Relapſe. If a purulent Spitting be followed by a Tabes and Looſeneſs, it is fatal. And generally thoſe who have dragged on an infirm Life the other Part of the Year, are carried off in the Autumn.

The next to theſe Diſorders is the Tabes, that I mean, which follows an Ulceration of the Lungs, and ſucceeds a Spitting of Blood, by the *Greeks* called Φθίσις: When this begins there is a frequent Coughing, and Spitting of Blood without any Pain; afterwards it becomes ſordid, and at laſt truly purulent. Then the Body begins to be extenuated, and affected with a continual and hectick Fever, which grows more troubleſome after Meals and in the Night: In vehement Labour, Coughing or Anger, Blood is ſometimes hawked up with the *Pus*. When the Diſtemper encreaſes, and threatens ſudden Deſtruction, there is a great Loathing of Food, the Thirſt increaſes, the

Eyes grow hollow, the Noſe acute, and the Temples collapſe, the Scapulæ become prominent like Wings: There is a very great Weight in the Cheſt, the *Pus* ſtinks either of itſelf, or when thrown upon Coals: The Nails grow crooked and pale: The Hair falls off: There is likewiſe a Looſeneſs: The Feet ſwell: Sometimes a Portion of the putrified Lungs comes up: At laſt the Spitting is intirely ſuppreſſed, and the Patient expires. This Diſorder is long, certainly deſtroys the Patient, and is moſt incident to Perſons between their eighteenth and five and thirtieth Year. And thoſe Bodies are ſooneſt ſeized with it, which are lean, with a flat Cheſt and long Neck, as alſo with lean prominent Scapulæ, crooked Legs, or elſe ſubject to frequent Catarrhs. It ariſes for the moſt Part and kills in the Autumn. Children are eaſier freed from it than others. Among theſe, Virgins and thoſe Women in whom this Diſorder aroſe from a Suppreſſion of the Menſes, leſs frequently recover. And that Patient, of whom we can have any Hopes in this Diſtemper, ought to expectorate a white Matter, intirely equal both in Subſtance and Colour, and that which diſtils from the Head into the Noſtrils ſhould be like it. It is beſt of all to have no Fever, and next to that is to have it ſo ſmall, as not to impair the Appetite or augment the Drought. It is likewiſe good, if the Patient have a Stool every Day, and that this anſwer to the Quantity of Food taken

ken in. On the contrary, a Looseness, as also a frequent and bloody Vomiting are fatal. As a Swelling of the Hypocondria is bad in all Diseases, so more especially is it to be dreaded in a Tabes. It is also no good Sign, if after a Looseness the Body be troubled with an Itching. At this Time likewise, a mixed purulent Spitting, fœtid, and which weakens other imprudent People by the Contagion of its Effluvia; a continued Fever, which prevents the Patient's eating, and excites a great Drought, portend certain Danger in a thin Body. It is equally fatal if the *Pus* does not swim upon Water, especially Sea-Water, but sinks immediately to the Bottom: Or if what has been first expectorated, is now wholly suppressed. For now the Senses begin to be disordered, and Death generally ensues within four Days, and the Patient dies of a Looseness, even while he is speaking, and understands every Thing. Wherefore the last Period of Life is very uncertain and deceitful in this Distemper. This Illness often descends from Parents to their Children, and attacks whole Families as it were by a certain hereditary Right. Among these, some first spit Blood, and then *Pus*; others hawk up for a long Time a thin yellowish Humour, and at last Blood mixed with *Pus*; others again waste away almost insensibly, without any Spitting of Blood, or antecedent Signs of a Defluxion. Whoever has Lungs either naturally infirm, soft, tender, languid and vicia-

ted, at laſt dies tabid, either after Spitting of Blood or without.

THE Cough deſerves ſome Conſideration. If this ariſe from the Defluxion of a Humour which ruſhes from the Head upon the *Aſpera Arteria* and Lungs, a Titillation and oftentimes a troubleſome Heat is felt in the Fauces; ſometimes the Reſpiration is difficult: And if the Humour be thin, nothing, or very little is thrown up by the Cough. It is uſually dry too when the Diaphragm and other Parts ſerving to Reſpiration are compreſſed. Sometimes it is occaſioned by a Diſorder in the Liver, Spleen, Ventricle and Womb; at other Times by the external Cold, or Tubercles, or Wounds in the Breaſt. And as an immoderate thin Humour, ſo alſo that which is too tenacious and thick, occaſions a dry Cough: But that Kind of Cough is the worſt which follows a Decay of the Strength. For the Matter being inwardly moved and nothing brought off, it is no Wonder if a Perſon ſinking under a Weakneſs of Strength ſhould die. Every Cough attended with a moderate Straining, a quick and eaſy Diſcharge of the Matter with much Relief, without any Pain, and without any Redneſs of the Eyes, is judg'd to be the beſt; the contrary of this is very bad. If when the Cough was firſt moiſt, it becomes ſuddenly dry, ſo that the Cheſt continue heavy; we may conclude that there is ſome Danger either of a putrid and hectick Fever, or an Ulceration

of

of the Lungs. All Coughing is bad which deſtroys the Sleep. As alſo that, which being frequent and violent teizes the Perſon for a long Time, and that with a Catarrh: For from hence a Spitting of Blood and Tabes enſue. Generally, when the Lungs are viciated, or there is an inveterate Obſtruction in the Cheſt, there is a continued Cough, and which intermits at no Seaſon.

But that which ariſes from a Catarrh, is troubleſome two or three Times in a Year, at certain Intervals, as the Humour falls down. If the Humour is ſluggiſh, there is a moſt vehement dry Cough, with which hardly any Thing is raiſed: The Reſpiration is difficult, and that with a Rattling and Wheezing, ſuch as is uſually heard in an Aſthma, of which we ſhall now treat.

A Difficult Reſpiration may ariſe from the many Diſorders in the Thorax, which have been already conſidered. I ſhall now enumerate the Signs of that Diſorder, which renders the Breathing difficult from the Lungs being ſtuffed up with a phlegmatick Humour. When this Illneſs is moderate, the *Greeks* call it Δύσπνοια: When it is more violent they call it Ἄσθμα, and a Shortneſs of Breath. Which Diſorder, if it increaſe ſo as to make the Reſpiration extremely difficult, and that it cannot be perform'd but with the Neck erect, is then properly called Ὀρθόπνοια. Therefore in an Aſthma the Cheſt is heavy, the Reſpiration quick and ſhort, without

without a Fever: Which is ſo troubleſome, eſpecially during any Exerciſe of the Body, that the Perſon is almoſt ſuffocated by the Streightneſs of the Thorax, as if he had been agitated with hard Running, and is ſometimes forced to ſtand with his Body and Neck erect, to draw in his Breath. Beſides, the Breath itſelf, ſince it is carried thro' ſtrait Paſſages, makes a Kind of hiſſing Noiſe. Beſides this, there is a Pain in the Breaſt and Hypocondria, and ſometimes alſo in the Scapulæ, which one while intermits and another while returns. To all which there is likewiſe added a ſlight Cough. This Diſtemper, when it is grown very inveterate, fills the Lungs firſt with Phlegm concreted in the Form of Hail, and then ſometimes into true Stones, which have been found both in Bodies that have been diſſected, and have alſo been obſerved to be caſt up by violent Coughing during any Exerciſe in living Perſons, and that very hard, and of the Bigneſs of a Barley Corn or a Pea. A Dyſpnœa may be longer born without any Inconvenience. But an Aſthma and Orthopnœa, tho' they are alſo long, may yet be very ſevere, and often carry off the Patient by a ſudden Suffocation. Theſe have violent Paroxyſms at certain Intervals, eſpecially when the Weather is cold and moiſt, and the Patient has indulged himſelf too much in Eating and Drinking. And if a freſh Catarrh ſeize him at this Time, he is generally ſuffocated. Thoſe Perſons always

ways come off the beſt, who faſt much during a Fit of the Aſthma, and injoy Reſt of Body and a ſerene Sky. They are moſt ſubject to an Aſthma, who are frequently troubled with Coughs and Catarrhs, eſpecially if they be in Years, and have ſtreight Cheſts. This Diſtemper happens alſo to many other Perſons, particularly thoſe who are naturally very fat, or elſe become ſo thro' Idleneſs and intemperate Living. An Aſthma for the moſt Part carrys off old Men, and in others is very difficultly cured.

A TREMULOUS Reſpiration is dangerous, as alſo an unequal, irregular, intermitting and deficient Pulſe; and indeed as the Diſorder grows the more violent, this becomes the more languid and ſlow. And if a Syncope intervene at this Time it is extremely bad. When the Breath is ſmall, ſlow and cold, it ſhows Matters to be in Extremes: As alſo when the Pulſe from being ſlow becomes too quick and languid, and in other Reſpects like that which I juſt now mentioned. An Aſthma has ſometimes been obſerved to turn into a Peripneumony. If any one be rendred gibbous by this Diſeaſe before he arrives to the Age of Puberty, he periſhes.

A WOUND in the Lungs is known by theſe Signs: Spumous Blood is voided by the Mouth, and red Blood from the Wound: There is a difficult Breathing with a certain Noiſe: The Patient lies more commodiouſly on the Wound; for then ſome are capable of

Speak-

Speaking, who being turned on the contrary Part become mute. If the Perſon does not die of the Wound in a few Days, he is gradually waſted by a Fever and Maraſmus, and then expires.

If the Thorax be wounded, a Blaſt of Wind ruſhes out of the Wound in Expiration, and if Aloes be put into it, its Bitterneſs is perceived in the Mouth.

Every Diſorder which is incident to the Heart is terrible. That Faintneſs which the *Greeks* call Λαποθυμία, may ſeem tolerable, if it be ſhort. For the whole Strength is not then (as it happens in a Syncope) ſunk at once, but only a Relaxation of the Spirits, and the Perſon who is thus affected for the moſt Part hears, ſees, and knows every Body preſent.

That Diſtemper of the Heart is more ſevere, in which it trembles and palpitates: By the *Greeks* it is called Παλμὸς τῆς Καρδίας, and by us a Palpitation. The Arteries all over the Body beat vehemently, and are likewiſe ſometimes dilated, eſpecially the jugulars. This Diſorder frequently intermits, and this chiefly when the Body is at Reſt; but returns again with hard Labour, ſtrong Wine, Venery, Bathing, and Anger. If the Palpitation of the Heart continue for any Time, it portends Danger of ſudden Death. It is equally to be dreaded, if it frequently happens, and that after the going off of any Diſtemper, with a great Nauſea and bilious

Vom-

Vomiting, which Vomiting neither terminates the Nauſea nor the Palpitation of the Heart. And thoſe Perſons, in whom this Diſorder returns after ſome Months, or even after a Year, have been obſerved to be cut off by Death before they arrived to old Age: Some of them being deſtroyed by acute Fevers, and others ſnatched away bv a ſudden Syncope. This Diſtemper is moſt familiar to thoſe who are between their fortieth and fiftieth Years, as alſo thoſe whoſe Spleens ſwell with thick Choler. A Palpitation of the Heart uſually precedes a Syncope and changes into it

A SYNCOPE, which is the ſudden Subverſion of the Strength, either aboliſhes the Pulſe, or elſe renders it extremely rare, obſcure and creeping. The Countenance is perfectly cadaverous, all Power of Senſation and Motion is loſt, the Temples, Neck and Breaſt are bedewed with a cold Sweat, and the extreme Parts of the Body grow cold. That Syncope which ariſes from a Diſorder in the Stomach, and creates a great Nauſea, is much the ſafer, and is therefore called σομαχικὴ. But that which happens without any manifeſt Cauſe, without any Diſorder in the Stomach, but yet with a frequent Palpitation of the Heart, threatens great Danger, and fixing itſelf chiefly in the Heart, it is called by the *Greeks* Συγκοπὴ καρδιακή. This is moſt familiar to old Perſons, to Perſons recovering from any Diſtemper, and to thoſe who are much

much debilitated from any Cauſe whatever; and if it frequently happens, uſually occaſions ſudden Death. For thoſe, as *Hippocrates* obſerves, who are ſubject to long and frequent Swoonings, for the moſt Part die ſuddenly. The Signs of preſent Deſtruction in this Diſeaſe, are a livid, green or black Countenance: Or if a ſharp Medicine has been up the Noſtrils, and it excite no Sneezing: Alſo if the Reſpiration and Pulſe be aboliſhed, and the Head fall upon the Shoulders or Breaſt. As a Palpitation of the Heart, if it occaſion a Syncope, is fatal; ſo much more is a Syncope, that follows the Palpitation. If the Heart be wounded, the Blood is thrown forth in great Quantities, eſpecially if either the larger Arteries or Veins in it are cut thro': The Pulſe grows languid, the Colour extreme pale, a cold and fœtid Sweat ariſes, and the extreme Parts being very cold Death immediately enſues. If only the Subſtance of the Heart, and not its interior Cavity be wounded, Life has been obſerved to continue ſometimes a Day, at other Times a Night. But if the Weapon has pierced into the Cavity of the Heart, the Extremities of the Body immediately growing cold, Death ſuddenly comes on.

If the Diaphragm hath received any Wound, ſpumous Blood is diſcharged, the Reſpiration becomes difficult and rare, the Hypocondria are drawn upwards, there is alſo a Pain in the Spine, and a Spitting of Blood,

Blood, and to this a Delirium, and ſometimes a Cough, in the laſt Place a Fever; and the Patient, (if he does not expire in the Beginning) dies tabid, as happens in Wounds of the Lungs.

Uſeful Obſervations in Diſorders of the Ventricle and Inteſtines.

THAT the Stomach is weakned by Heat is manifeſted by a continual Drought, wherein cooling Drinks are coveted, as alſo by a Loathing of Food, Heat, ill-taſted Belchings, and the noxious Uſe of hot things, and a profitable one of ſuch as are cold. If it be from a cold Cauſe, the contrary to all this happens. And the Signs of Humidity are little or no Deſire to drink, much Saliva, and advantageous Uſe of thoſe Things which are drying.

THE Contrary of this is found, when too great a Dryneſs has occaſioned an Imbecility. If any Humour be inwardly viciated, the Perſon is troubled with a Nauſea, Vomiting and Belching, eſpecially after Meals. When there is a Collection of yellow Bile, beſides thoſe Signs which I have already mentioned in a hot Stomach, the Mouth is likewiſe bitter, the bitter Humour itſelf is thrown up by Vomiting, there is a Gnawing of the Stomach,

mach, especially when fasting, whence a stomachick Syncope may ensue, especially if the Mouth of the Stomach have an acute Sensation. But if Phlegm be troublesome, it never corrodes the Stomach, but when it begins to be salt, neither does it excite any Thirst, but much Saliva is spit out without any Coughing. At this Time the Belchings become acid, and the Concoction infirm, together with an Inflation and Tension of the Stomach. This Disorder, if it increase much, creates great Tensions and violent Pains in the Stomach, some Hours after Eating, and often lays the Foundation of some very violent Distempers, as the Dropsy for Instance, or Iliack Passion. But when there is a Superabundance of black Choler within the Body, the Appetite increases, and the Spittle smells very strong of Fish: A Palpitation is felt in the Mesentery, from which one while Melancholy, another while the Epilepsy arise: The Sleep is likewise disturbed with absurd and vain Imaginations, and the Muscles of the Thighs are contracted with exquisite Pain; lastly, the Mind is oppressed with Sorrow and Fear.

We may likewise make some Observations concerning the Appetite or Loathing of Food: It is a very good Sign in all Diseases, if the Patients have any Liking to the Aliments which are offered to them; but if they begin to have an Aversion to their Food in long Distempers, and after them, it is bad: As also to be

be ſeized with a Loathing after having had an Appetite: Every Diſorder is to be dreaded when the Appetite has been long loſt, eſpecially when that was contracted by Cold. It is equally pernicious if any one begin to be troubled with a Boulimos or canine Appetite. In this there is a very great Deſire of Food and much is devoured, which fatigueing the Stomach by its Weight, is thrown up again by Vomiting: and the Patient being thus relieved, begins again to devour with a freſh Appetite, and vomits up again what he has taken in, like a Dog. This Boulimos often occaſions a Coma, Lethargy, Dropſy, Atrophy, and even Death itſelf. But there is ſometimes a Faintneſs, Flagging of the Spirits, and a Coldneſs of the extreme Parts. Then indeed a Syncope is near, which is ſucceeded by Death itſelf.

We may likewiſe ſay ſomething concerning a Singultus. This is moſt familiar to Children. To others indeed it ſometimes happens in acute Diſeaſes, and in burning Fevers, more eſpecially ſuch as are peſtilential; and then it is for the moſt Part fatal. If it follow a Looſeneſs, a great Flux of Blood, or any other violent Evacuation, it portends Danger. It is bad therefore if a Hiccough ariſes upon Vomiting. It is likewiſe dangerous if it be occaſioned by an Inflammation of the Liver. But if a Sneezing be added to the Singultus it is uſeful, for this is ſol-

ved by that. But if a Delirium or a Diſtenſion of the Nerves intervene, it is fatal.

When a Vomiting is at hand, there are frequent Spittings and Nauſea, the Stomach heaves, the Præcordia are diſtended with a Tremor upon the lower Lip. When this happens it is not very troubleſome, if being mixed with Phlegm and Bile it does not continue too long. That which is unmixed is more irkſome, eſpecially if it be likewiſe attended with a Singultus or a Diſtenſion of the Nerves. If the Vomiting be porraceous, livid, or black, it is bad. Worſe than the black is that which throws out all the bad Colours together. A black ill-ſcented Vomiting, which is frequent in peſtilential Fevers, denounces ſudden Deſtruction. A Vomiting without any Fever is not bad, when it is occaſioned by the Strength of Nature which endeavours to expel that Humour which offends her: Which Humour may be derived either from the Liver, Spleen, Meſentery and Inteſtines, as alſo from the Brain, or laſtly from the whole Body itſelf. Any Woman who vomits up bilious Matter for many Days together when ſhe is hungry, if ſhe be neither with Child, nor in a Fever, we may conclude that ſhe either vomits up round Worms, or that ſhe certainly will do ſo. Vomiting, if it is rare, promotes the Health: if it be continual, it viciates the Stomach, and by inducing a Weakneſs, makes it as it were the Receptacle of the Filth of the whole

whole Body. Oftentimes a Vomiting, eſpecially if it be green, terminates as it were critically, a Diſtenſion of the Nerves, Epilepſy and Coma. Spontaneous Vomiting, if it diſcharge the morbid Matter, is ſerviceable and eaſily born: If not, the contrary happens. If a Diſtenſion of the Nerves, or a Singultus come upon a Vomiting it is bad: eſpecially if ſincere Humours be thrown up.

Blood is likewiſe thrown up ſometimes by Vomiting, which can never happen, unleſs a Perſon be very much diſordered. This Blood comes up mixed either with the Meat, Drink or Phlegm, and is thick and blackiſh from the Concoction. Some Part of it is ſometimes diſcharged by Stool, and that ſo black as to reſemble Pitch. In this Caſe it is no Wonder if there be a frequent Swooning occaſioned by the Blood's corrupting inwardly. That Blood which proceeds from the Liver, is more ſplendid and pure. But that which is diſcharged from the Spleen, is more turbid, blackiſh and ſometimes acid. That Blood which being forced out of the Subſtance of the Ventricle is vomited up, is for the moſt Part attended with ſome Pain. If a Woman vomit Blood ſhe is freed from it by the coming down of the Menſes.

Sometimes the Ventricle is ſeized with an Inflammation. There is a violent and continued Pain with a burning Fever, which is aſſwaged by no Fomentations; there is a large Tumour upon the Part, which

may be circumſcribed by the Touch, and is ſometimes conſpicuous to the Sight. Whatever Food or Drink is taken in is immediately thrown out again by Vomit or Stool: Unleſs either the upper or lower Part of the Ventricle be tumified, whereby the Paſſages are ſo ſtreightned and cloſed up that nothing can paſs. There is likewiſe a vehement Burning, Drought and Nauſea, and when the Diſorder grows more violent a Delirium and frequent Swooning. And if beſides this the extreme Parts grow cold it ſhews Death to be near at hand.

WHEN an Abſceſs is formed in this Diſeaſe, it breaks either into the Cavity of the Abdomen, or into that of the Ventricle: After which the *Pus* is diſcharged either by Mouth or by Stool. But if there be any internal Ulcer, it is abſolutely fatal: For then the Patient is conſumed by a ſlow and continued Fever: The Ventricle becomes infirm, and is ſometimes in Pain and ſometimes without: There is a frequent Vomiting, but more frequently looſe Stools, as alſo a quick and frequent Pulſe: Laſtly, the whole Body receives no Benefit from the Food which is taken, but gradually waſtes away to the laſt Day of his Life.

I SHALL now treat of the Diſeaſes incident to the Inteſtines, which may be both acute and long. That is the moſt violent of all, which the *Greeks* call Χολέρα. The Bile is voided both upwards and downwards with great

great Violence, firſt liquid, pale and yellowiſh: After that thicker, and of a more intenſe Colour, namely yellow, porarceous, blue or black: There are acute Pains, Contorſions and Inflations in the Upper Inteſtine: There is a great Thirſt, the Pulſe is quick, frequent, ſmall and conciſe: Oftentimes Sweat breaks forth over the whole Body: When the Diſorder grows more violent, the Pulſe is wholly ſunk, the Legs and Hands are contracted, there are cold Sweats, a Faintneſs, and when Things are in Extremes, a Syncope: All which concurring together, there is no Wonder if the Patient die ſuddenly. This Diſeaſe is moſt frequent in Summer and Autumn, and moſt familiar to Children. It happens more rarely to elderly Perſons, but is then more terrible. A vehement Thirſt in this Diſtemper is bad, but Sleep is very good. It is ſome Sign of Health if the Vomiting be ſuppreſſed. The Matter oftentimes turning upon the Bladder occaſions a Heat of Urine. The Patient is in the greateſt Danger, if he is attended with a Syncope, or if what he vomits up have an ill Scent or is ſtercoraceous: But that is ſafeſt which has no ill Smell.

When a Flux of the Belly begins, and only the ſincerer Humours are diſcharged without any Inflammation, Ulceration, or violent Senſe of Pain, it is called by the *Greeks* Διάῤῥοια; in which different Humours are evacuated, one while Phlegm, another while

either yellow or black Choler. This Flux takes it Riſe from different Places. If the Phlegm is thrown from the Brain upon the Belly it flows chiefly in the Night after the Sleep, and is according to *Hippocrates* thin and ſpumous. There are likewiſe certain Intervals of this Flux; and it is preceded by a Catarrh and Pains of the Head; eſpecially if there has been a ſudden Viciſſitude of Heat and Cold. If this Humour be evacuated by any Fault of the Inteſtines, Meſentery or Ventricle, it is thick, and mucous, and it comes forth more in the Day-time without any certain Intervals. When Bile that is yellow, hot, and ſometimes ſpumous, is diſcharged from the Liver, as alſo (which often happens) from the Meſentery into the Belly, this happens without any great Pain in the Belly or Gripes, at ſome certain Intervals, and that in the Night: But this Flux is uſually ſhorter than that which is occaſioned by a Diſorder in the Stomach. The ſame generally follows, if black Choler flow either from the Spleen or the Meſentery into the Belly. But this Caſe, as it ariſes from a worſe Humour, is much more difficult than the former. But we muſt diſtinguiſh between this Humour, and Blood which is concreted by its long lying, and which by the Length of the Paſſage is rendred aduſt, black and very like liquid Pitch. Therefore if it be this very Humour, and not a melancholy one, there either is, or has been, a bloody Vom-

Vomiting, in which if any Linnen be dipt it becomes red. But there is nothing of this if the black Choler be diſcharged by Stool. A Flux of the Belly for one Day, is often very ſalutary; nay for ſeveral Days, if it ceaſe within the ſeventh, and neither returns again, nor afflicts the Perſon with a Fever, or violent Thirſt. But if it run to any Length it becomes dangerous. For it ſometimes excites Gripes and Fever, and conſumes the Strength. If a Fever comes on, and the Stools which have been ſtopped, return and begin to run out to any Length, it is dangerous: Whether the Stools be either bilious, or crude and phlegmatick. It is equally noxious if there ariſe an Inflammation of the Liver, Hypocondria or Belly, as alſo if the Stools be various, and the Flux continue a long Time with Pain. Farther, it is not ſafe to ſtop a Looſeneſs unſeaſonably; for then the Stomach begins to be affected, Fevers enſue and Inflammations of the Bowels. Beſides, the Matter being carried upwards, there ariſe Pains in the Head, or Phrenſy or Lethargy, according to the Nature of the Humour which is brought thither. When any one is troubled with a Looſeneſs, it is beſt if it be neither impetuous nor too frequent, but gradually carried off. Too frequent Stools weaken the Patient and render him watchful: And if they be very large as well as frequent, there is Danger of his growing faint. If when a Diarrhæa is grown inveterate,

rate, a Vomiting come on ſpontaneouſly, that ceaſes. A Flux of the Belly is attended with no Injury, if it end in good Time; which is, when by laying the Hand on the Belly which is contracted, no more Motion is perceived, and the Stool is followed by a Blaſt of Wind. If the Excrements change in a Looſeneſs, but not for the worſe, it is good. If there be no Stools for many Days, we may expect either a Looſeneſs or a Fever. If the Appetite be loſt, or a Singultus come on in a Looſeneſs, it is bad. Thoſe who are waſted either with an acute or a chronical Diſtemper, or from Wounds, or any other Cauſe, and void either black Choler or black Blood by Stool, die in a Day or two. Thoſe Excrements which reſemble black Blood, and are voided ſpontaneouſly either with a Fever or without, are very bad; and are always the more ſo, the more ill Colours appear in them. It is better if theſe be brought away by Medicine, and that when they exhibit the greater Variety of Colours. If aduſt Choler is diſcharged by Stool in the Beginning of Diſtempers, it is fatal. Equal Danger is portended, if in a Diarrhœa, the Patient be ſeized with a Nauſea, Vomiting, and Delirium: As alſo if he be ſo infirm, that his Pulſe is conſtantly vermicular and formicating,, and not at all raiſed after Meals. If a Looſeneſs begin after any long Illneſs, or if this ſtill continue and is nothing relieved thereby, and the Patient does not well bear it,

it, we may know that he is then in certain Danger. It is equally to be dreaded, if a Dropſy ſhould have been occaſioned by a Looſeneſs, or this ſupervene upon a Melancholick Ulcer: Likewiſe if it happens from an Ulceration of the ſuperior Inteſtine, eſpecially of the Jejunum: Or if by the Continuance of a Diarrhœa, any Puſtules, which were before broke out, ſhould ſuddenly diſappear: Or laſtly, if the Flux ſhould grow inveterate in old Perſons, or if the Patient ſhould firſt void Water as it were by Stool, and afterwards a fat Humour reſembling an Ointment. This Kind of Excrement, which appears covered over with Oil and Fat, is familiar to thoſe peſtilent and burning Fevers, which colliquate the Body, as alſo to Hecticks, Tabes and Atrophy, and ſometimes to Inflammations of the Viſcera. And Dyſenteries have been often obſerved to ariſe from Diarrhœa's which have continued a long Time. Which Caſe uſually proves fatal to pregnant Women; and tho' they themſelves ſhould recover, yet the Fœtus is waſted and deſtroyed. And it generally happens, that they who have been long troubled with a Diarrhœa, have ſwelled Legs.

NEITHER ought we to be a little fearful of that Flux of the Belly, in which not pure Humours, as in the Diarrhœa, but the Meat and Drink are voided without any Pain, crude, unequal, and very watery, and this ſo quick, as to loſe hardly any Thing of their

their Form, without any Appearance of Blood or Bile. This Diſorder is termed after the *Greeks*, a Lientery. While the Patient labours under it, he receives no Benefit from his Aliment, and falls into a bad Habit of Body: There is a burning Heat all over the Hypocondria, and a great Averſion to Food. This Diſeaſe ſometimes holds the Patient a long Time, at other Times it carries him off on a ſudden. It is more eaſily removed in young Perſons, eſpecially if very large Quantities of Urine be diſcharged, and the Body begins to receive any Nouriſhment. It proves very ſtubborn in Perſons more advanced in Years, eſpecially if it ſhould ſucceed a long Dyſentery. It is likewiſe attended with the greater Danger, if the Stools be ſo frequent, (that is almoſt every Hour both Day and Night) as to allow the Patient no Time for Sleep. Alſo if it be entirely crude, or black, or light and fœtid like Cow-Dung: If the Appetite continuing, the Drought ſhould encreaſe: If the Patient's Urine be not in Proportion to his Drink, if his Mouth be ulcerated, his Face grow red, marked with Spots of all Colours: If his Belly become ſoft, ſordid and wrinkled. Death is certainly portended by theſe Signs, if the Patient be old and hath long laboured under this Diſtemper. In a long Lientery, if there be ſome Belchings, which were not at firſt, it is eſteemed ſalutary. It is likewiſe a good Sign of a Recovery, if the Quantity of the Urine begin

begin to anſwer to that of Drink, and the Body to be nouriſhed, and that without any Fever or ill Colour. As in almoſt all Fluxes of the Belly, ſo in this likewiſe, the Diſtemper is thought to be at an End, when there is no longer any Grumbling inwardly, and the Stools be followed by a Blaſt of Wind. If any one, after having been long exerciſed with this Diſtemper, void certain Animals by Stool, with much Griping and Pain, theſe being ended he ſwells. If this Diſorder be followed by a Pain in the Side, or a Difficulty of Breathing, there is Danger of an enſuing Tabes. Oftentimes this Diſtemper thro' the Corruption of the Air becomes epidemick, and carries off thoſe People who have been long ailing. It alſo ſometimes follows a *Vomica* of the Lungs, an Abſceſs in the Abdomen, or a Suppuration of the Thorax and Kidnies, with certain Danger to the Patient.

THAT Flux of the Belly which is bloody, and attended with an Ulcer in the Inteſtines, Pains and Contorſions, we call, in Imitation of the *Greeks*, a Dyſentery. In the Beginning of this Diſeaſe the Stools are firſt bilious, or elſe bring away the Mucus of the Inteſtines, then they become fat and pretty much tinged with Blood: After this Abraſions, or the inner Coats of the Inteſtines come away mixed with bloody and purulent Excrements: In the laſt Place, the true Subſtance of the Guts is wore off and diſcharged with the purulent Sordes. Beſides all this, the Blood comes away

away in ſmall Quantity, and at ſhort Intervals by Stool, and that one while (unleſs the Diſorder be ſeated very low) with ſome liquid Fæces, another while with ſuch as are mucous, purulent and mixed with fleſhy Corpuſcles: There is much Pain in the Anus, and a great and frequent Deſire of going to Stool: With both theſe a ſmall Matter is voided, and the Pain is immediately augmented, but after a ſhort Time abates again: The Patient is deprived of Reſt, and his Sleep interrupted by the Stools and ſometimes a Fever. If the true Coat of the ſmall Inteſtines be abraded, the Health of the Patient is deſperate: But if the larger Inteſtines only are thus affected, we may entertain ſome Hopes of a Recovery. But we may make uſe of ſome certain Signs, in order to diſtinguiſh the particular Place where this Diſtemper is ſeated: For if the ſmall Inteſtines are affected, the Pain is ſeated higher near the Navel; and there is a greater Interval between this and the Stool: The Blood and whatever Part of the Inteſtine is diſcharged, are more exactly mixed with the Excrements; the Delirium recurs more frequently and with greater Vehemence: There is a Fever and a Drought: And the Fæces run away crude, ill-ſcented, like the Liquor Fleſh has been waſhed in, bilious, porraceous, various, with very great Contorſions of the Belly, and Decay of the Strength, which likewiſe threatens a Faintneſs. And when the Diſorder is fixed in the Jejunum,

Jejunum, the Stools appear more crude, with black Blood mixed with the Excrements, as alſo with yellow Bile. In this Caſe there is alſo a greater Thirſt and Nauſea, as likewiſe a greater Loathing of Food, and ſometimes a Vomiting enſues: The Pain is higher than the Navel, and raiſes a malignant Fever: The Patient himſelf turns pale, and ſweats till he faints: All which Symptoms concurring he is eaſily deprived of his Strength and dies. But when the larger Inteſtines ſuſtain the Diſtemper (which Caſe is ſafer and more eaſily cured than the former) the Fæces are ſincere, in large Quantity, denſe, ſprinkled with Drops of Blood, and come away with a Flatus, and are likewiſe ſometimes ſpumous: They are always mixed with ſome Fat, and the Blood is not intimately mixed with the Excrements as in the former Caſe, but ſwims a-top in Parcels; this likewiſe immediately follows as ſoon as any one begins to be in Pain, and is voided with the firſt of the Stool. All Dyſenteries are generally long and ſtubborn: In which, if the Patient's Strength remain firm, and proper Means be applied, he may poſſibly be recover'd: But if he be debilitated, and much waſted with the Diſtemper, and the Inteſtine weakened with a deep and inveterate Ulcer, we may then conclude that Medicine will be entirely uſeleſs. When this happens, the Stools are extreme fœtid, crude, light, and of a blackiſh Colour: And with them there is often a very great Effuſion

ſion of Blood. Dyſenteries, which are occaſion'd by black Choler, are fatal: As alſo if during theſe, certain Caruncles are diſcharged: Or if they ariſe ſuddenly after any long Illneſs, when the Patient is already infirm. It is equally bad, if the Patient be troubled with a Suppreſſion of the Stools, or if the Diſtemper be alleviated but for a very ſhort Time by the Looſeneſs, and if it begin to be protracted into any Length. Thoſe Dyſenteries are likewiſe not ſafe, which begin with a Fever and violent Pain, with various and frequent Stools, as alſo with a burning Heat of the Liver, Hypocondria and Belly, which intercept the Food, and occaſion a great Drought, and an Averſion to Eating. The Danger is the ſame, if the Belly flow continually when the Perſons are either aſleep or awake, and that by Night as well as by Day: If the Appetite be loſt, and the Deſire of Drinking encreaſe: If the Urine diſcharged is not proportional to the Quantity of Liquor taken in; if the Body being already waſted, the Stools ſhould ſuddenly turn black: Or if this Diſeaſe being grown inveterate a Lientery or a Dropſy ſhould enſue. Generally when the Stools are ſuppreſſed at improper Times, au Abſceſs is formed near the Ribs, or on the Viſcera, or Joints. Dyſenteries, if they do not continue too long, are ſerviceable to ſplenetick Perſons: If they grow inveterate, they are prejudicial. When the Blood by being inwardly retained in a Dyſentery

tery is concreted, the Belly is filled with Flatulencies, the extreme Parts ſuddenly grow cold, the Patient's Strength, as alſo his Pulſe ſink.

The next to a Dyſentery is the Teneſmus, by the *Greeks* called Τενεσμός, which very often precedes and follows it. There is the ſame frequent Deſire of going to Stool as in a Dyſentery, as alſo a Pain in the Anus, and the Excrements are mucous, phlegmatick, with ſome Share of Blood: Afterwards, when the Inteſtinum rectum is ulcerated, the Stools are alſo purulent. Theſe Stools are ſometimes attended with Excrements that are well figured, and well digeſted. This Diſtemper, if it ſhould happen to pregnant Women, may likewiſe bring away the Fœtus. However it is pretty eaſily born, and never kills of itſelf, eſpecially if the Patient be free from a Fever, and have no Averſion to his Food: But if it happen in the Autumn, it is for the moſt Part contagious, eſpecially if at this Time it likewiſe turn into a Dyſentery: Which Caſe, as it is not ſafe in Adults, ſo is it very fatal to Children. Sometimes the Teneſmus when it is of long Standing, paſſes into the iliack Paſſion, if it be from a phlegmatick Cauſe or into the Cholick. If it be from a bilious Cauſe, it rather ends in a Dyſentery. Oftentimes a Teneſmus which has been neglected leaves a foul purulent Ulcer, which turns into an almoſt incurable Fiſtula.

THAT Diſeaſe in the ſmaller Inteſtines, which the *Greeks* call Ἕιλεον, we call the Iliack

Iliack Paſſion, and is thus known. There is a very exquiſite Pain, one while above the umbilical Region, another while below it. And in either Place an Inflammation ariſes. There is likewiſe ſuch a prominent Tumour, that the diſordered Inteſtine ſeems twiſted like a Cord: The Paſſages of the Belly thro' which the Excrements are convey'd, are ſo obſtructed and cloſed, that a Clyſter being injected cannot aſcend, neither can the Food taken in by the Mouth deſcend, and the Belly can by no Means emit the leaſt Blaſt of Wind. Wherefore every Thing being protruded upwards, there ariſes a frequent Vomiting both of Bile and alſo Phlegm: This is preceded by a great Nauſea, uſeleſs Belching, and Humidity of the Ventricle. The Reſpiration likewiſe becomes difficult, and whatever Meat and Drink is taken in, tho' it deſcends, yet after a little while, ſince it can paſs no lower, it is thrown up again by Vomiting, impure and ill-ſcented. This generally comes up alone without any Fæces, when the upper Part of the ſmall Inteſtines is affected: But the Fæces themſelves likewiſe come upwards, if the Diſtemper be ſeated ſomewhat lower. The ſame Inconvenience happens in both Caſes, when Matters are at the worſt, and ſometimes Worms are vomited up, there is a Difficulty in making Water, with a continued Vomiting, and the Anus is cloſed up ſo as not to admit the Point of a Needle. In the laſt Place, the Mouth,

Beches,

Belches, and alſo the whole Body acquire an ill Scent; to this are added a Singultus, Delirium, as alſo a Diſtenſion of the Nerves, Tremor of the Heart and Syncope, all certain Signs of approaching Fate. This Diſeaſe is the moſt acute of all which attack the Inteſtines, and unleſs it be ſolved in ſeven Days, it kills. It is familiar to Children, and more rare but very fatal to Perſons in Years. If it be attended with frequent Vomiting and Deafneſs it is bad. We may hope for a Recovery, if a purging Medicine taken in at the Mouth, force its Way thro' the Belly and occaſion a Stool: And the other Signs be likewiſe ſalutary. There is uſually leſs Danger alſo, if the Pain change its Situation, than when it continues fixed in any particular Place.

NOT much unlike this Pain is that which is felt in the greater Inteſtine called Colon. There is a very violent excruciating Pain, with a great Inflation thro' the whole lower Part of the Abdomen, and that chiefly on the right Side where the Inteſtine is affected: For from hence it begins, and runs on to the left Side in the Manner of a Girdle. Wherefore this colicky Pain is likewiſe felt near the Kidnies, and about the Back, as alſo above and below the Navel, occupying a great Part of the Belly, one while on the right Side, another one the left, and is wholly vague and unſettled. If the Diſeaſe be occaſioned by Flatulencies, they often cauſe in-

ternal Grumblings, being cloſely pent up, they cannot break forth either upwards or downwards. Oftentimes the Colick fixing upon one Part, creates exquiſite Torment, which is not abated by breaking Wind either upwards or downwards. The Inteſtine itſelf is afflicted with the moſt grievous Pain, ſo that it ſeems as if it was pierced with an Inſtrument, and that Wind continually ruſhed thro' it. Beſides this, there is a frequent Vomiting of phlegmatick, various, porraceous and green Matter. But this Kind of Pain ariſes chiefly from a thick and very vitreous Phlegm: In both Kinds there is commonly an Averſion to Food, eſpecially ſuch as is ſweet and fat; there is a continued pungent Pain in the Ventricle: There is much Drought, with a great Deſire of drinking Water, which yet is not abated by drinking: As alſo Belchings, which are ſometimes ſuddenly checked when they are ready to break forth: The Belly is likewiſe ſo cloſed, that nothing, no not the leaſt Flatus can paſs downwards: Beſides if any Thing comes away either ſpontaneouſly or by Art, it is dry, ſometimes reſembling Sheeps Pellets, at other Times like Cow's Dung, light, flatulent, and floating upon Water. Laſtly, the Urine by Reaſon of the exceſſive Pain grows bilious, and is ſometimes ſuppreſſed by the Conſent of the Kidneys with this Diſeaſe: When Things are in Extremes, cold Sweats ariſe, and a frequent Singultus, Delirium, Diſtenſion

ſion of the Nerves, Coldneſs of the extreme Parts, and Syncope enſue. When there is a good Likelyhood of Recovery, the Excrements are not too long retained; the Pain changes and alſo intermits; the Patient is relieved after a Stool, or Breaking of Wind, and he conſtantly breaths freely, during the Diſtemper. The Colick often turns into a Palſy, an Arthritis, Epilepſy or into a Dropſy: Sometimes alſo it ends in the Iliack Paſſion, and that within ſeven Days. But it ſeems worth While, to diſtinguiſh between this Diſeaſe and the Colick, by ſome certain Signs. All the Symptoms of the Iliack Paſſion are more violent than thoſe in the Colick. In both Caſes the Belly is coſtive, with very acute Pains and frequent Vomitings. But when the Diſeaſe is ſeated in the ſmaller Inteſtine, ſince this is more ſenſible, the Pain is therefore the more exquiſite, and kills ſooner, and upon this Account this Diſeaſe is to be reckoned acute; the other may be chronical. Add to this, in the Iliack Paſſion, the Pain moves more to the Right or Left, is ſeated higher above the Navel, and is ſooner cured by Medicines taken in at the Mouth, than by Clyſters. The Stomach is likewiſe more diſturbed, and Vomitings are more frequent, and the Patient is more inclined to a Delirium, cold Sweats and Syncope, than in the Colick. The Pains of the Colon and the Kidnies likewiſe agree and diſ-

agree much amongſt themſelves, ſo that, unleſs any Gravel or Stones be voided, underſtanding Phyſicians may often be deceived by a racking Pain in the Kidneys, under the Appearance of a Colick. Wherefore we may diſtinguiſh them thus. There is a greater Nauſea, Vomiting and Loathing of Food in the Colick, and the Pain generally begins on the Bottom of the right Side, and aſcends upwards to the left. It ſeems oftentimes to ſurround the whole Belly as it were, and to poſſeſs ſeveral Places, being one while more violent here, another while there. But the Pain of the Kidnies contains in one Place, except that it ſometimes extends to the Coxendix, or the Teſticle on the ſame Side with it, and it indifferently occupies either Side near the Kidney.

THO' this Pain, as well as that of the Colick, may abate upon the Uſe of Clyſters and Breaking of Wind, yet it is not with equal Efficacy. The Urine too here is firſt thin, in a ſmall Quantity, and watery, and is ſometimes wholly ſuppreſſed: After ſome Time it is voided in greater Quantity, thick, ſandy and bubbling. Wherefore even this Sort of Urine may ſhew us of what Kind the Diſeaſe is; ſince the Colick itſelf, eſpecially that which ariſes from vitreous Phlegm, may be ſometimes fixed in one Place; and as the Pain in the Kidnies ceaſes upon the Gravel being voided with the Urine, ſo likewiſe does that of the Colick, when the cold Humour is diſcharged

charged by Stool. This alſo muſt be added: That the Colick returns not by much ſo frequently as the Pain in the Kidnies. Beſides this Kind of Colick, which we have deſcribed, and which is truly ſuch, and ariſes from crude Phlegm or Flatulencies; there is another ſometimes obſerved, which is occaſioned by an acrid Matter and the Bile itſelf. This is attended with a Fever, vehement Thirſt, Heat and Watching. The Pain does not move thro' various Parts of the Belly, but generally fixes on one only, and is always encreaſed by going to Stool; the Urine is very bilious and acrid; and the Uſe of hot Meat and Drink is noxious. The Pain of the Colon is yet more fixed in one Place, when this Inteſtine is inflamed; and this is the moſt ſevere Kind of this Diſeaſe, and often turns into the Iliack Paſſion. It is attended with a violent Fever with much Heat and Burning; there is an inward Pulſation near the Seat of the Diſeaſe; there ariſes a Drought; and a Nauſea, and Vomiting chiefly bilious, whereby however the Pains are nothing alleviated; the Belly is extreme coſtive, and the Urine ſometimes ſuppreſſed.

I FIND it obſerved by ſome learned Men, that the Peritonæum, or at leaſt thoſe Membranes which cover the Abdomen and Parts of the Belly, are likewiſe afflicted with very grievous Pains. Theſe Pains, tho' they in no wiſe belong to the Colick, yet ſince they

are equally violent, and very much alike, and the Parts affected are not far removed from each other, I think it not amiſs to place them here.

And theſe, as they are very ſevere, ſo likewiſe are they very long, and yield to none of thoſe Remedies which are proper in the Colick; whether Medicines, Fomentations or Clyſters. But generally ſucceed long Fevers, and thoſe Kinds of bilious Diſeaſes, which are not eaſily ſolved; and have been often obſerved to terminate, as it were critically, continued Fevers, as well as Tertians and Quartans; and this however in ſuch a Manner, that for a long Time after, theſe Pains encreaſe on that very Day that the febrile Paroxyſm uſed to be on.

Worms, which the *Greeks* call by one common Name Ἕλμινθες, are not all of one Form. Some are long and round: Others ſhorter and broad reſembling a Gourd-Seed: Others again ſmall and round named Aſcarides. Theſe are the common Signs of the two former Kinds. The Teeth gnaſh in the Time of Sleep, and much Saliva flows from the Mouth, which the Perſon is often obſerved to ſwallow, as if he were eating ſomething: When he is awake his Noſe often itches, and he is troubled with a great Drought, which is not abated by drinking: Sometimes the Belly is diſtended with a Grumbling and much Griping, and is often inflated, as if the Perſon laboured under a Dropſy: Sometimes

times a Lientery is added thereto, as alſo a Suffuſion of the Eyes, Paleneſs of the Face, and a cold ill-ſcented Sweat. Sometimes alſo the Mind begins to be affected, but the Patient does not then pick up the Flocks, as happens in acute Fevers, neither does he feel a violent Pain in his Head. The Worms themſelves are voided one while by the Mouth, another while by Stool, and ſometimes again by the Noſe; and they are generally more troubleſome in the Night than in the Day. While the Patient is faſting they generally creep upwards, and then bite the Inteſtines, Hypocondria and Stomach; ſometimes they occaſion Swoonings, Suffocations, Tremors or Epilepſy, or laſtly a Syncope: By which Diſorders, Children have been often oppreſſed and carried off. Beſides theſe Diſorders which I have juſt now recounted, they have likewiſe been obſerved to occaſion Colicks, canine Appetite, and Palpitations of the Heart. But it is almoſt peculiar to the long ones, to be bred in the ſmall Guts, and bite them during Hunger; ſometimes they run into the Stomach, and by that Means excite Pain, Nauſea, Vomiting, Singultus, and a dry ſhort Cough. If by Chance they get into the Stomach, they render Deglutition difficult. In theſe Circumſtances ſome awake out of their Sleep with a great Outcry, jump out of Bed, and then preſently go to Sleep again. Others during their Sleep put out their Tongues, or gnaſh with their Teeth,

or talk wildly, and also tumble their Bodies about into various Postures. Children also form their Mouths, as if they held a Nipple in them, and seem to swallow something. In many the Eyes and Cheeks appear of a sanguine Colour, but this Redness turns after some Time into a livid Colour.

THE Pulse is unequal, obscure, deficient and recurrent. In some the Belly discharges the Food corrupted, and swells with Flatulencies; the rest of the Body is wasted without any probable Cause, If a Fever happens, it encreases without any Order or Regularity, and recurs three or four Times in a Day and Night, and that with a great Coldness of the extreme Parts. The long Worms are less dangerous than the broad, and generally more frequent; chiefly attending Children from their Infancy to the Age of Puberty. But the broad Worms, which are bred either in the Cœcum or in the Cellules of the Colon, have many Symptoms in common with the long ones; besides which, they teize the Patient with continual Gnawings, and create an insatiable Appetite: For as soon as the Aliment is taken in, they immediately devour it, which being done, they begin presently to gnaw the Intestines again. These oftentimes grow together in great and surprizing Clusters; and render the Body which is infected with them lean and weak. Farther, when those small Worms, which are called Ascarides, are harboured in the

the Anus and Inteſtinum rectum, there is a great Itching in thoſe Parts, from whence they ſometimes come forth, and creep about upon the Thighs and Buttocks: They are often found in the Stools, and that pretty frequently in Adults. In this Caſe, there is a continued Deſire to go to Stool, and the Patient after having had a Stool, finds himſelf eaſier. Commonly Worms of all Kinds oftenest ſeize Children, eſpecially if they be loaded with much Crudities, and have for ſome Time uſed vicious Food, as Cheeſe, and fugacious Fruits.

I SHALL now treat of that Diſorder of the Anus, wherein the Veins, which are ſpread over it, diſcharge their Blood without any certain Meaſure; this is called, after the *Greeks*, Hæmorhoids. Tho' it is equally preternatural, if the Blood which is brought into theſe Parts, cannot be thence evacuated according to Cuſtom. Thoſe which do not appear outwardly, but excite a violent Pain in the Anus, eſpecially when any hard Excrements are voided, are called the blind Hæmorhoids. This Pain is ſometimes ſo very ſevere as to occaſion an Inflammation of the Anus: When the Hæmorhoids are open, the Blood always flows in ſtraining to go to Stool, and ſometimes alſo of itſelf. The Blood is firſt melancholick, then pure and red; ſometimes, when it has concreted in the Cavity of the *Inteſtinum rectum*, it appears grumous. Wherefore it differs from that, which

which proceeds either from the Meſentery, Liver, or ſuperior Parts. For no great Quantity is diſcharged from the Meſentery, and that which comes from an unſound Liver is not pure Blood, but diluted, and like Water wherein Fleſh newly ſlain has been waſhed. From the Veins of the upper Parts either burſt or oppreſſed, the Blood flows torpid and black like Pitch. The external Hæmorhoids are prominent below the Anus; thoſe which are internal, throw out Blood almoſt without any Pain or Tumour, which Blood comes away with the Stool, tho' in no wiſe mixed with the Excrements. This Flux if it be in exceſs, is greatly dangerous; for then the Patient's Strength is conſumed, the lively Colour of the Face periſhes, a great Weight ariſes in the Hips, and Weakneſs in the Legs: That Blood which is diſcharged, is now no longer thick and black, but pure and red, the neceſſary Treaſure of Nature. Therefore if this Diſorder be of any long Standing, it lays the Foundation of a Dropſy. Neither is the Danger leſs, when the Hæmorrhoids are ſuppreſſed in thoſe Perſons, who are not weakned by the Flux, and in whom it is not ſo much a Diſeaſe as a ſalutary Evacuation: For the Matter being turned upon the Hypocondria and Viſcera, it is attended with ſudden and very ſevere Conſequences, for the moſt Part either a Dropſy or a Tabes. Wherefore I find *Hippocrates* judiciouſly adviſes us, in the curing of the Hæmorrhoids,

to

to leave one open among many. Thoſe in whom the Hæmorhoids flow duly, are neither ſubject to Pleuriſies or Peripneumonies, or corroding Ulcers, nor Leproſie, Elephantiaſis or Vitiligo, neither to melancholy or quartan Fevers. Which Diſeaſes generally attack thoſe in whom the Hæmorrhoids are unſeaſonably cured. If the Hæmorrhoids begin to flow in Perſons who are melancholy, nephritick, or mad, it is good. It is likewiſe ſerviceable, when theſe are too much ſuppreſſed, if either the Menſes come down, or an Hæmorrhage breaks forth at the Noſe.

THE Anus is likewiſe ſeized with an Inflammation, and that chiefly when either hard Riding has preceded, or when the blind Hæmorrhoids have excited too great Pain in it. In which Caſe the Stools by reaſon of the Tumour in the Anus, are very difficultly diſcharged, and ſometimes retained for many Days: There is a very exquiſite Pain, which is greatly exaſperated both by the Compreſſion of the Anus, and the Straining to go to Stool. From this Diſorder a Fever ſometimes ariſes, eſpecially if the Patient hath had no Stool for a long Time. If any Abſceſs be formed by this Inflammation, it very often breaks into the Cavity of the *Inteſtinum rectum*, which then turning into a foul Ulcer *Pus* is diſcharged.

THIS Ulcer from the Nature of the Place is eaſily and in a ſhort Time turned into a Fiſtula, which afterwards very difficultly

ficultly yields to any Remedies: But continues for a long Time, though the Pain be abated, and discharges *Pus* either at the Beginning of the Stool, or certainly in the Middle of it, not mixed with the Excrements.

LASTLY, it remains now that I describe those Signs, whereby Wounds on any Part of the Passage, through which the Food is conveyed from the Mouth to the Anus, may be distinguished. Therefore if the Gullet be wounded, neither Meat nor Drink can pass, but are vomited up again as soon as taken in: There is likewise a Singultus, Swooning, and sometimes a Distension of the Nerves. If the Ventricle be injured, there happens a frequent bilious Vomiting and Singultus; whatever Meat and Drink are taken in, are immediately thrown up again by Vomiting, the Pulse grows languid, and cold Sweats break forth on the extreme Parts, which are at length succeeded by Death itself. The common Marks of a Wound both in the Ventricle, and small Intestines are, the Falling of the Meat and Drink thro' the Wound into the Cavity of the Abdomen, whence the Belly and Hypocondria swell, and Bile is sometimes vomited up. When the other Intestines are wounded, it is known either from the Stools, or their Smell.

Useful

Uſeful Obſervations in the Diſorders of the Meſentery, Liver, and Spleen.

NO ſlight Obſervation is due to the Diſorders of the Meſentery: For upon this Part the Superfluities of the Veins eaſily fall, and there lay a Foundation for many violent Diſeaſes, as the Cholera, Melancholy, Diarrhæa, Dyſentery, Cachexy, Atrophy, Languors, ſlow and erratick Fevers, or other Illneſſes difficult to be diſtinguiſhed. When this Part is affected with a Tumour without an Inflammation, it is at firſt generally lax and ſoft, after ſome Time it becomes perfectly dry and hard. Since this (as alſo the Part itſelf) is free from Pain, it muſt be explored chiefly by Feeling and Preſſure, for it is obſerved to be deeply buried in the Body.

IT likewiſe affects and compreſſes the Inteſtines themſelves, and occaſions a Coſtiveneſs. It is otherwiſe with a Tumour on the Muſcles of the Abdomen, and with the Belly prominent with a Load of Fat: For neither of theſe Caſes affect the Inteſtines or Stools. The Fat may likewiſe be felt with the Hand, and diſtinguiſhed from the Muſcles of the Abdomen: When theſe are tumified, they occur at the firſt Touch, and always feel ſome Pain upon Preſſure, and ſometimes without it. Beſides, a Tumour upon theſe Parts projects outwards

wards, and may be perceived by a gentle Stroaking, without any Preſſure, and is of an oblong Figure like that of the *Muſculus rectus* in the Abdomen.

THE Meſentery may be alſo ſeized with an Inflammation. At this Time there is an inward Weight but no manifeſt Pain: A Fever ariſes, but then it is ſo moderate as not in the leaſt to endanger the Life of the Patient: In the Beginning of this Diſeaſe, a red Sanies is voided by Stool: When an Abſceſs is formed, a white *Pus* is diſcharged often mixed with the Excrements, it is alſo voided ſometimes in great Quantities without any Mixture at all, eſpecially if the Diſeaſe tend towards the lower Part of the Inteſtines. It is very certain, that this Kind of *Pus* can come only from the Meſentery, ſince it cannot deſcend from the other Parts without Pain, or Mixture, or violent Fever.

I SHALL now proceed to the Diſorders of the Liver, which are of various Kinds and require much Obſervation. If this Viſcus be very hot, as Hunger is extremely injurious, ſo nevertheleſs the Deſire of Food is abated, eſpecially of Fleſh: There is alſo a frequent and great Drought: The whole Body feels hot, but particularly the Palms of the Hands and Soles of the Feet, which Parts, if a Dryneſs be added to the Heat, are dry, if Humidity, they are moiſt. But the Contrary to this generally happens, if the Liver be diſordered by too much Cold, which yet is but

ſel-

ſeldom. And if Matter be likewiſe added to the Intemperance of the Qualities (which happens when theſe are of any long Continuance) if the Liver be affected with Heat, the Bile, which is ſometimes diſcharged either by Vomit or Stool, is firſt thin and pale, after that, thick, yellow and fœtid. Beſides this the Mouth is bitter, and there is a great Loathing of Food, and Drought.

Sometimes alſo a Fever is raiſed, which is generally an intermittent Tertian, or uncertain one; or if the Subſtance of the Liver be thoroughly viciated, it is of the ſlow Kind, by which the Body after ſome Time is gradually waſted. The Signs of a cold Humour, are Stools that are neither frequent nor in great Quantity, without any Fœtidneſs or much Colour: A baſtard Tertian: The Body any Thing rather than lean, and the other Signs contrary to thoſe in the former Caſe.

In a Weakneſs of the Liver, many Things may be obſerved, among which, the Colour of the Body, eſpecially the Face, and the Stools deſerve the moſt particular Notice.

The Face is ſorrowful, with a certain paliſh or greeniſh Caſt: The Stools, if the Liver can in any Degree perform its Office, are liquid like Cream, tho' at this Time there is no Diſorder in the Ventricle or Meſentery; for if there ſhould be any, the Excrements would hardly appear in the leaſt concocted. But if the Liver cannot in the leaſt

leaſt perform its Office at all, then various and difficult Caſes may ariſe from a Flux of the Belly. The Perſons ſeized with this Diſorder, and the Fluxes hereby occaſioned, we call, after the *Greeks*, Hepatick. The Stools are at firſt like the Water wherein Fleſh newly ſlain has been waſhed, namely, ſanious and bloody. After ſome Time they are variouſly changed, as the Liver is variouſly affected. When this is over-heated, feculent, aduſt, and melancholy Blood is voided by Stool, and in the laſt Place black Choler itſelf is likewiſe diſcharged. During this the whole Body colliquates, a Fever ariſes, with a Loathing of Food, Thirſt, quick Pulſe, and bilious Urine. But if the Liver be infirm without any Heat, there follows a Diſcharge of foul grumous Blood, and this not continued, nor much, generally tinged with the different Colour of the Excrements, however at certain Times it is in much larger Quantities, but never very fœtid: This Diſorder runs into a pretty great length, and begins without a Fever; tho' ſometimes a languid one ariſes, from the Blood being putrified in this Viſcus. Beſides the Dryneſs of the Body renders the Blood that is thrown forth more craſs and aduſt: The Humidity more thin and diluted. These hepatick bloody Stools are eaſily diſtinguiſhed from the Dyſentery, for in this the Blood is voided in ſmall Quantities with Pain, Griping, Strigments, and at ſhort Intervals. On the contrary

trary when the Liver is distempered, the Blood is discharged without any Pain or Abrasions, and that in greater Heaps and at longer Intervals, as at the Distance of two and sometimes of three Days. If Blood be discharged from a Vein inwardly burst or opened, it comes away pure and very little blackish from the lower Parts: From those which are higher it is black and very like liquid Pitch, which however reddens Linnen dipt into it; so that by this Mark it may easily be distinguished from black Choler. If any large Member being mutilated, or by Reason of the Suppression of any necessary and useful Evacuation Blood should be voided by Stool, it breaks forth suddenly in large Quantities, and pure, and suddenly ceases, returning at long Intervals of Time. But that Blood which distils from an Ulcer of the Liver, is in extreme small Quantity, and descends gradually mixed with much virulent and turbid *Pus*. There is likewise a slight twitching Pain, felt near the Region of the Liver, and there have been some antecedent Signs of the Ulcer that is formed there. In like Manner ought an Inflammation of the Liver to be known by its proper Signs, which render the Stools sanious and bloody. These being well considered, we may easily observe what Difference ought to be made between the Hepatick bloody Stools, and those which have been just now mentioned. Besides, in this Imbecillity of the Liver, which I am at pre-

ſent treating of, the Blood often flows ſpontaneouſly from the Noſtrils, Uterus, or by the Hæmorrhoids, or with the Spittle. This Diſeaſe, if it become inveterate, turns either into a Cachexy, or a Dropſy. But if *atra Bilis* begin to be voided before theſe Diſtempers come on, we may conclude that the Patient's Life is in Danger. Hither ſeems to be referred that Weakneſs of the Liver, in which, tho' it enjoy its attractive and retentive Faculties in a good Degree, yet it but weakly concocts, and imperfectly creates the Blood. Therefore in this Diſorder there ariſe Crudities of the Humours, after which the Feet, and then the whole Body ſwells. This Kind of Illneſs is very frequent among thoſe, who are recovering either from a violent or elſe Chronical Diſtemper, and thoſe who have been weakned by a Dropſy, hard Swellings of the Liver or Spleen, or by a long Jaundice.

None of the Viſcera are ſo ſubject to Obſtructions as the Liver. It is thus known. A Weight and Diſtenſion are felt in that Part where the Liver is ſeated (eſpecially if the Perſon uſe any Exerciſe immediately after Meals) with which as there is ſome dull Pain, ſo is there no Tumour or Fever. In this Diſorder the Countenance is of an ill Colour: The Reſpiration is ſometimes difficult, eſpecially in going a Journey, or in endeavouring to aſcend a high Place: The Urine is thin, diluted and watery: The Stools, if the

the Obſtruction be in the flat Part of the Liver, are liquid like Cream, and in large Quantity, ſometimes alſo (according to certain Authors) bloody: If on the gibbous Part, they are compreſſed and dry: If on both Sides, then are they one while hard, another while liquid. This Diſorder is attended with many and thoſe ſevere Conſequences. For in general every Diſeaſe which owes its Riſe to the Liver, whether it be Inflammation, or hard Swelling without any Pain, or Dropſy, or Fever, or Atrophy, or Diarrhæa, ſeems to be occaſioned by antecedent Obſtructions in this Viſcus.

When an Obſtruction of the Liver grows inveterate, ſometimes a hard and inſenſible Tumour riſes upon it, which the *Greeks* call Σκίῤῥος. This Tumour being circumſcribed by the Situation and Figure of this Viſcus, always reſiſts the Touch (unleſs very hard preſſed) and is void of all Pain. And it may be eaſier felt if the Perſon lie on his right Side, than on his Back; for then the Tumour is not found but by Preſſure. It likewiſe ſhews itſelf more, if no Dropſy be yet begun, and the Abdomen be free from Fat, and not very fleſhy. The Patient always lies more commodiouſly on the right Side than on the left: The Countenance is cloudy and of an ill Colour, the Reſpiration is difficult: The Appetite languiſhes: The Perſon feels loaded after Meals: The Jaws ſeem to be in a Manner relaxed: The Urine does not flow

ſo copiouſly as before, and at length the whole Belly, Legs and Feet ſwell, the Breaſt and Shoulders are extenuated. Wherefore now (ſince it was not relieved at the Beginning) a Dropſy begins to ariſe, which as ſoon as it is confirmed, the Patient can expect ſmall Relief from Medicine. It is equally to be dreaded, if a hard Tumour of the Liver ſhould lay the Foundation of a Jaundice, or on the other Hand, if that ſhould ariſe from this. For then that Kind of Dropſy enſues, which is called after the *Greeks* Aſcites. But when a cold Humour which has been long impacted in the Liver, creats a hard Tumour, it generally continues a long Time without any Inconvenience to the Perſon's Life: Or if it ſhould turn into any Kind of Dropſy, it firſt paſſes into a Cachexy, and then into a Leucophlegmatia.

WHEN the Liver is inflamed, there is a burning and acute Fever, with a Tumour on the right Hypocondrium, which is attended with Pain, that reaches to the baſtard Ribs on that Side. Wherefore there ariſes a ſmall, quick and dry Cough, with a Difficulty of Breathing: To theſe are added great Thirſt and Want of Appetite: The Tongue now grows rough, and is loaded with a Lentor, which is firſt yellow, and then black: Beſides this, there is a frequent Singultus, Nauſea, and bilious Vomiting, both yellow and green, and when the Diſeaſe grows very violent, black Choler is likewiſe thrown up.

This

This laſt Humour is ſometimes ſo violently diſcharged by Stool, as to raiſe a Diarrhæa, or Dyſentery: The Urine is thick, red and turbid: And the whole Body is often tinged with a yellow Colour. Some, in the Height of the Paroxyſm are ſeized with a Phrenſy, as alſo with a very ſharp Pain in making Water. If the gibbous Side of this Viſcus be affected, a Tumour, which may be diſcovered by laying on the Hand, and ſometimes even by the Sight, is fixed on the right Hypocondrium, where the Liver is ſeated: After that a frequent Cough, and greater Difficulty of Breathing enſue: The Pain ſeizes not only the baſtard Ribs, but reaches even to the Collar and the Shoulder of the ſame Side. Sometimes the right Hand is alſo affected; there is a greater Weight upon the diſtemper'd Part: Very little Urine is diſcharged, and when the Tumour grows larger, there is none at all: The Singultus is leſs frequent and leſs violent: The Skin of the whole Body is tinged with a new Colour. The Patient cannot lie eaſily on the right Side, for then the infirm Part is preſſed and fuller of Pain. Farther, when the Inflammation is ſeated more in the hollow Part of this Viſcus, there is indeed leſs Weight, but the Want of Appetite, Thirſt, Nauſea, and bilious Vomiting are greatly encreaſed: And the Patient is almoſt ſtrangled with a Singultus. The Tongue alſo grows blacker, and the Patient is more ſubject to bilious

Stools, a Coldneſs of the Surface of the Body, and a Syncope: He is likewiſe more affected, if he lye on his left Side. That Inflammation which fixes here, is ſafer than that which ſeizes on the gibbous Part of the Liver: This is carried off either by Sweat, copious Urine, or a Flux of Blood from the Noſe; and that by Sweat, as alſo by looſe Stools and Vomiting. Hitherto we have enumerated thoſe Signs, which belong to a more violent Inflammation of the Liver. But yet this (as I have frequently obſerved in my Practice) is ſometimes ſo ſlight and ſmall, that the Pain, Weight, and the whole Diſeaſe may be diſcovered rather by the large Reſpiration than by the Touch. In this Caſe all the Symptoms are milder, and the Diſtemper itſelf is oftentimes protracted for ſeveral Months. In any Inflammation of the Liver, if while the Diſeaſe is yet crude and the Strength infirm, a Looſeneſs ſhould come on, it is bad. The Colliquation of the Body is likewiſe very hurtful, eſpecially if it be attended with Hoarſeneſs and much Coughing. If ſpumous Blood be hawked up, or the Spitting be immediately ſubputrid, or purely bilious, it is fatal. This Diſeaſe when it is not ſolved, often ſuppurates, and a fatal Abſceſs enſues. When this begins to be formed, the Fever and Pains encreaſe, and hardly any Thing is diſcharged from the Part affected: Lying upon any Part of the Body is troubleſome: The Patient is often ſeized with

with a Horror without any Order or certain Cauſe, and afterwards grows vehemently hot. When the *Pus* is formed, the Pains and Heats are leſſened; but the Patient grows much weaker, which may be known by the frequent, ſmall and languid Pulſe, as alſo by frequent Swoonings. This Swooning, when the Abſceſs is broke and the *Pus* diſcharged, grows more violent, and turns as it were into a Syncope, from which Caſe hardly any one ever eſcapes. But if Life ſhould even under this continue, the *Pus* is diſcharged one while by Stool, another while by Urine, and is ſometimes alſo thrown up by Vomiting. Sometimes indeed, tho' rarely, the Viſcus is eat thro', and the *Pus* falls into the Abdomen, and a fatal Dropſy enſues, in which the Belly manifeſtly ſwells, and a great Weight is felt upon the Groin and Pubes. But if an Ulcer be left on the Liver, it is never healed, but in Time waſtes and conſumes the Patient: Then the Stools are putrid, ſanious, and ſometimes bloody, as if there was a cadaverous Colliquation: The Urine is likewiſe mixed with Sanies, eſpecially if the Diſorder be on the gibbous Part of the Liver.

THE whole Subſtance of the Liver may likewiſe be corrupted, as well as that of the Lungs, which in Time renders the Patient tabid. This Diſeaſe ariſes gradually, and gradually encreaſes; wherefore it does not at firſt confine the Patient to his Bed, but ſuffers

him to perform all the Offices of Life, as yet without any Fever; tho' when the Diſorder is very much encreaſed, a ſlow one at length ariſes, ſuch as we have deſcrib'd in the former Book. There is no great Drought, nor Tumour in the Hypocondrium: The Patient has a very ſtrong Deſire for rich Wines, with a very great Averſion to fleſh Meat, eſpecially when it is hot; he totally languiſhes both in Body and Mind, and often faints, and when this becomes more violent, he falls into a cold Sweat, and then expires.

THE Spleen is oftner loaded both with a lax and hard Tumour than the Liver. The Reſpiration is quick and difficult, eſpecially in Running, or with hard Labour, or when lying on the right Side. The Appetite generally continues, but the Food is ill-concocted, whence a Flatulency ariſes, and a great Flux of Saliva into the Mouth, a murmuring Noiſe is likewiſe in the left Hypocondrium, and much Wind breaks forth both upwards and downwards. Sometimes the morbid Matter is ſo corrupted, and malignant, as to attack the whole Body, and throw it either into a Jaundice or a Cachexy. In this Cachexy the Mouth ſmells ill, the Gums are corroded, and ſeparate from the Teeth: Swellings ariſe under the lower Eyelid, Blood is voided from ſome Part or other, particularly from the Noſtrils: While the Food is concocting Something acid is vomited up, tho' in this Diſeaſe Vomiting is always very difficult:

cult: The Belly is very often coſtive: The Belly on the left Side grows tight: The Legs are ſomewhat ſwelled in the Evening: The Countenance is cloudy and of an ill Colour. There are alſo turbulent and wild Dreams during Sleep. If there be no Flux of Blood from any Part, and the Mouth has no ill Smell, Ulcers break out on the Ancles, which either do not heal at all, or elſe are very difficultly cicatrized. If there be any hard Tumour on the Spleen without any Senſation, which the *Greeks* call Σκίῤῥος, it ſometimes ſeizes the whole Body of the Viſcus itſelf, and is circumſcribed by the Situation and Figure of the Part, at other Times it fills the whole left Hypocondrium. This is longer contracting than that which is lax, and is in every other Reſpect more ſevere. Nothing ſhows the Diſorders of the Liver and Spleen ſo much as the Colour of the Countenance, ſo that from that alone ſome Perſons diſcover the Diſeaſe without examining the Viſcera with the Hand. The Tumour of the Spleen generally attacks thoſe, who have been often blooded, or laboured under vague and uncertain Fevers, eſpecially ſuch as are peſtilential. And this uſually continues longer, and is leſs dangerous than if it were ſeated on the Liver. If the Feet ſwell in this Diſorder, the Dropſy is near at Hand. It is dangerous if Medicines are often applied without any Succeſs: That Urine is likewiſe not ſafe, which is diſcharged thin and watery for a

long

long Time together; a Dysentery that does not hold long is useful in this Disease, and oftentimes carries it off entirely: But is hurtful if it grow inveterate: And if it should turn into a Lientery or a Dropsy, Medicine is indeed then of no Avail. Every Tumour of the Spleen is at first very difficult to cure; but if it begin to run to any Length, it is then scarce ever removed. When the Spleen decreases, it is salutary if the Urine losing its watery Colour begin to assume a bloody one, or if it come away thick, fæculent, and in large Quantity. The more the Spleen enlarges, the more the Body is emaciated, which is a Proof of the Humours being inwardly corrupted. Swelled Spleens are usually attended with various Events; for in some it is one while encreased, and another while lessen'd at different Intervals: In others it remains constantly large, and is lessen'd by no Applications whatever, and these Persons are in the greatest Danger as being most liable to a Dropsy: And I remember to have seen not a few who were troubled with a hard Spleen all their Lives without any ill Consequence.

If the Spleen (which rarely happens) should be inflamed, a hard pulsating Tumour and Pain seize the left Hypocondrium, with a continued and violent Fever. There is also a great Heat and Drought, and the Tongue is loaded with a blackish Lentor, the Appetite is lost, the Respiration is difficult and imperfect,

fect, like what it is in angry Children when they cry. If an Abscess or Ulcer be formed, they may be discovered in this Case by much the same Signs as they are in the Liver.

We must in the next Place discourse of the *atra Bilis*, which Distemper, since it is common, I wonder has never been treated of but by one or two Writers. The left Hypocondrium does not swell, neither is it distended or oppressed, nor is it ever much pained, but the Præcordia are hot, especially after the Use of Wine or hot food. For these are not easily concocted, and there is much Belching and Breaking of Wind. The Arteries in the Præcordia and above the Navel are vehemently agitated, and there arises a great and frequent Palpitation of the Heart, which is sometimes succeeded by a Swooning, at which Time the Pulse is also immediately changed. With these some People begin to be disordered in their Senses, and seiz'd with a vain Sorrow and Fearfulness. This Distemper is chronical, and when cured often returns thro' Mismanagement.

I shall now speak of the common Disorders which may be occasioned both by the Spleen and the Liver: I shall begin with the Jaundice, which the *Greeks* call Ἴκτερος. In this Disease either yellow or black Choler is diffused over the whole Body, and tinges it with its Colour. This Colour is chiefly discerned in the White of the Eyes, and about the Temples. When this Disease arises

ariſes from yellow Bile, there is a Pain in the Head, and Thirſt, and the Veins being full under the Tongue ſwell, there is a great Sluggiſhneſs in the Body, eſpecially when it is moved, as alſo a Dulneſs of the Underſtanding: There is likewiſe an Itching all over the Skin: Nevertheleſs the Body hardly ever ſweats. And the Members, from whatever Cauſe the Diſeaſe ariſes, are always lax: And when the Patient ſtirs very much, there is a Difficulty of Breathing: After ſome conſiderable Time the whole Body grows white with a certain Paleneſs: There is either no Fever, or elſe a very ſlow one: The Urine is turbid, thick, and of a ſaffron Colour: The Stools, if the Diſtemper aroſe from a Redundancy of Bile, are entirely bilious: But if the Paſſages to the Gall-Bladder are obſtructed, the Excrements are white; no Part of the bitter Humour being fallen into the Belly: The Fæces deſcend in ſmall Quantity, viſcid, and this by little at a Time, and often going to the Stool: The Urine is likewiſe ſo red and thick that it is almoſt black: There is alſo ſome Senſe of Weight, but no evident Tumour on the right Side of the Præcordia. But if the Jaundice ſucceed any Diſorder of the Spleen, the Body is firſt tinged with a darker Colour, which afterwards turns livid and black: There is alſo a Weight in the left Hypocondrium, and ſometimes a hard Tumour: The Mind is ſorrowful and diſturbed with wild Thoughts: The Body is leſs heavy than

than in the former Diſtemper: The Stools and Urine are one while natural, another while blackiſh: The Belly however is very often coſtive. This Kind of Jaundice is more ſevere than the foregoing, and runs into a greater Length: If the Hæmorrhoids begin to flow in this Diſeaſe, it is good. The Spleen never occaſions the yellow Jaundice, but the Liver often does a black one, tho' this is not ſo entirely black as that which ariſes from a diſordered Spleen. But from what Cauſe ſoever this Diſeaſe may ariſe, it threatens the Patient with a Dropſy, if the Urine be wholly white, or much diluted for a long Time. The ſame Dropſy is likewiſe incident to thoſe who have had a long and violent yellow Jaundice: For after ſome Time a black Stone is formed in the Gall-bladder, which Caſe is almoſt always followed by a Dropſy. It is very dangerous if the Liver grow hard, or if this Hardneſs ſhould occaſion a Jaundice; for then there is no room for any human Aſſiſtance: It is likewiſe dangerous if an Inflation ariſe, eſpecially if it yield to no Methods of Cure. It is alſo not ſafe, if there be too obſtinate a Watching, as alſo if the Appetite be entirely loſt, or the Tongue ſo relaxed, that the Patient can ſcarce form his Words; and the Danger is encreaſed, if with theſe a Delirium ſhould intervene. It is likewiſe bad if a Jaundice ſhould be followed by a Fever, eſpecially if the right Hypocondrium continue hard. Beſides

ſides theſe Species of Jaundice, which we account ſimple and genuine, there is one or two more, which are not ſimple, and which happen much more rarely. As when the Liver is inflamed, aduſt Choler is ſometimes diffuſed all over the Body, by Reaſon of the Heat of the Blood: In which Caſe beſides the Weight, Tenſion and Pain in the right Hypocondrium there is a violent burning Fever; to which is added both bilious Urine and Stools: Theſe are followed by the other Symptoms, which we have already ſhewn to be joined with an inflamed Liver. There is alſo another Kind of Jaundice cauſed by the Criſis of bilious Fevers, when the yellow Humour is thrown by the Force of Nature upon the Surface of the Body, and it impreſſes its Colour upon the Skin. This Jaundice ariſes ſuddenly, and, if it be at a proper Time, ſolves the Fevers. Which proper Seaſon, according to *Hippocrates*, is on the ſeventh, ninth, eleventh or fourteenth Day, if ſo be the Hypocondria are yet ſoft: If it ariſe before the ſeventh Day of the Fever, it portends Danger.

A VERY violent Diſeaſe, and worthy particular Obſervation, is the Dropſy. Of this there are reckoned three Kinds. The firſt is, when much Water is collected in all that Space between the Peritonæum and the Inteſtines, whereby the whole Abdomen is diſtended. This is called by the *Greeks* Ἀσκίτης. The ſecond is, when theſe Parts which I have

now

now mentioned are very much loaded with Flatulencies, which Diſorder is in *Greek* called Τυμπανίτης. The laſt Kind is that with Water under the Skin, by the *Greeks* termed Λευκοφλεγματία The Body ſwells with a ſoft Tumour, particularly the Ancles and Feet, as at other Times ſo alſo in the Evening, and after Exerciſe, or when they have been long in a hanging Poſture. If this Tumour be preſſed with the Finger, it leaves a Pit which is very ſlowly filled up again; it alſo reaches oftentimes as far as the Thighs and Scrotum, and that which was large on the Feet in the Evening, in the Morning is almoſt wholly ſubſided. The Belly feels thick to the Touch, tho' yet there is very little more Tumour than on the other Parts. The Body is equally ſoft, lax and pale, and being likewiſe enervated and languid ſinks under the leaſt Labour. The Breath is very ſhort, eſpecially after Meals: There is alſo a ſlow continued Fever: The Pulſe is fluctuating, ſmall, quick and unequal: The Stools are crude, and ſometimes bloody: The Urine white, thin and watery. This Kind of Dropſy generally ſucceeds long Fevers, a vitiated Stomach, and a Suppreſſion as well as an immoderate Flux both of the Menſes and Hæmorrhoids: As alſo a long Difficulty of Breathing, and an obſtinate Watching. This is oftner incident to Children than Adults, and differs from the phlegmatick Cachexy only by its Magnitude, the Body being more ſwelled in that than in this.

And

And it generally happens, that thoſe who labour under this Diſorder, find themſelves one while better, another while worſe, even on the ſame Day. In the Beginning of this Diſeaſe, if the Belly flow ſpontaneouſly, it lays the Foundation of a perfect Recovery.

We muſt next deliver thoſe Signs, by which an Aſcites may be diſcover'd. The Belly, as alſo all the Abdomen ſwells with ſome Senſe of Weight, and if preſſed upon, utters the Sound of Water inwardly collected and ſet in Motion, ſuch as is made in a Bottle not quite full of Liquor. This Humour is ſometimes wholly included in the Cavity of the Abdomen, at other Times ſome Part of it falls upon the Scrotum, Thighs and Feet, and this chiefly after any Exerciſe of the Body. Oftentimes alſo it penetrates into the Cavity of the Thorax, and even into the Uterus itſelf, eſpecially when the Diſtemper begins to grow very violent and inveterate. When the Tumour is preſſed, the Reſpiration becomes difficult: And there is almoſt always a vehement Thirſt, the Pulſe is ſmall, frequent, hard and tenſive, very little Urine is diſcharged, and that generally thick and red, eſpecially if the Diſorder was firſt occaſioned by the Liver: The whole Body, except the Belly, is extenuated, and as it were colliquated: A Fever alſo ſometimes enſues, the Water within being corrupted. This Kind of Dropſy generally ſucceeds hard and inveterate Tumours of the Meſentery, Liver, Spleen, and

and Uterus, as alſo very burning Fevers, and long Jaundices which were firſt contracted from ſome Diſorder in the Viſcera. It is leſs frequent among Children than Adults, and generally attacks thoſe, who, by Reaſon of any Vein in the Viſcera being burſt or corroded, have often voided Blood either by Vomit or Stool.

THERE remains now, the laſt Kind of Dropſy, which ariſing from Flatulencies is therefore called Τυμπανίας by the *Greeks.* The Belly tho' it is leſs bulky than in the Aſcites, is yet ſo vehemently diſtended, that being ſtruck by the Finger it ſounds like a Drum: It does not fluctuate much, but ſends forth a Kind of murmuring Noiſe: There is a great Inclination to belch, and when this is done the Patient ſeems ſomewhat relieved: The Feet do not ſwell altogether ſo much as in the other Kinds of Dropſy: The reſt of the Body is extenuated. This Diſorder often ſucceeds Inflammations of the Ventricle and Colon, and alſo long Fevers. *Hippocrates* well obſerves, that thoſe Perſons who are troubled with Contorſions and Pains about the Navel and Loins, which neither yield to Medicine or any other Means, generally fall from them into this Kind of dry Dropſy. The Aſcites and Tympany differ thus from the Leucophlegmatia. In this the whole Body equally encreaſes with a lax Bulk, and the Belly not more than the other Parts. But in the former, the Belly only is enlarg-

ed, with ſome Swelling of the Feet, and the reſt of the Body is emaciated. The Pulſe in a Leucophlegmatia is fluctuating, ſoft and broad. In an Aſcites, it is ſmall, quick, hard and tenſive. In a Tympany it is longer, ſwifter, quick, firm, hard and tenſive. Theſe are common to almoſt every Dropſy. When a Dropſy is not yet formed, but only threatens the Patient, the cuſtomary Evacuations of Nature are beyond Meaſure ſuppreſſed, eſpecially the Hæmorrhoids and Menſes, or on the other Hand diſcharged either in too great a Quantity or for too long a Time: Add to this, that either a hard Tumour in the Liver and Spleen, or a Jaundice or Lientery is grown inveterate, and cannot be removed by proper Remedies: Beſides this, there has been either a Cacochymy or Cachexy for a long Time. The Teſticles alſo ſometimes ſwell, and the Appetite is either very great, or there is none at all. But when the Diſeaſe has invaded the Patient, the lower Parts of the Body from the Belly to the Feet appear ſwelled, the Reſpiration is difficult, and the Countenance turns pale with a greeniſh Caſt: With this there is a Loathing of Food, as alſo a Drought and dry Cough; though the former is more peculiar to an Aſcites, and a dry Cough to a Tympany. It is equally common in this Diſeaſe for the Liver to be affected, and the Humours to be too redundant; for which Reaſon Ulcers in the Body are not eaſily healed.

The

The Dropſy often begins of itſelf, oftentimes it ſupervenes upon another chronical Diſtemper, particularly a Quartan. And there is generally Reaſon to fear that the Patient will be filled with Water, when the Blood breaks forth plentifully both upwards and downwards, as alſo if there be a Fever: In which Caſe hardly any one eſcapes. They are in a much ſafer Way, in whom the Swellings ſometimes encreaſe, and at other Times ſubſide. But this often deceives the Patient, and makes him entirely neglect any medical Aſſiſtance, and thro' an ill-grounded Confidence of a Recovery he is loſt. That Dropſy is eſteemed more ſecure, which follows upon a Tumour of the Spleen, than that which ariſes from one of the Liver. But that is moſt ſecure, which begins without any antecedent Diſeaſe, eſpecially if the Viſcera be ſound, if the Reſpiration be eaſy, if there be no Cough, Drought, or Dryneſs on the Tongue, particularly after Sleep; at which Time the Symptoms chiefly happen: Add to this, if there be no loſs of Appetite, and the Patient be not uneaſy after Meals, if the Belly be either ſoft or extenuated: If it be likewiſe moved upon the taking of any Medicine: Or if the Excrements be ſoft and figured: If there be any immediate Change in the Urine upon altering his Drink or taking in any liquid Medicine: If he be free from Pain, Heat and Laſſitude, and bear the Diſtemper eaſily. Whoever hath all

these Symptoms is in a safe Way. And it is good, if the Swellings be only on the extreme Parts, but better if there be none at all. Loose Stools, which alleviate the Distemper, are likewise serviceable; if they aggravate it, they are wholly pernicious. But extreme Danger is portended, if the Distemper attack a hot and dry Body, especially if the Liver be so likewise: If it begin after an acute Distemper: If it succeed a hard Swelling of the Liver or Spleen, for then it is hardly if at all cured. And the Dread is augmented, if in this Disease there arise a a dry Cough, or a Flux of Blood, or of any other Humour whereby the Patient is not relieved, especially if the Respiration continue difficult, and the Stools turn into a Dysentery. For then the Patient is generally carried off within three Days. It is likewise unsafe, if it be attended with epileptick Disorders, if the Breath, Spitting, Sweat, or lastly if the whole Body have an ill Scent: As also if there be a Fever, with little and turbid Urine; or if, the middle of the Body being already filled with Water, Blood should be voided either upwards or downwards. Also if the Distemper being often removed, it should return again after short Intervals; and the more so if it should not yield to any Remedies, but remain fixed and immoveable in the Body. Matters are come to an Extremity, when the Strength being infirm a Looseness should begin, together with a great Difficulty in

in Breathing: When large foul Ulcers break out in the Mouth, Gums, Ancles, or laſtly, on any other Part of the Body; when concreted Blood is voided by Stool: When the Urine exhibits different Colours in different Parts of the Chamber-Pot, ſo that it be red below and livid above, or the contrary. Death alſo ſpeedily enſues, if upon Tapping or applying a Cauſtick, the Water ſhould be entirely let out of the Belly at once.

A WOUND in the Liver and Spleen, if it be received only on the upper Part, occaſions the following Symptoms. The Præcordia are drawn back towards the Spine; Blood is diſcharged by Vomiting and Stool; A pungent Pain ariſes on the Side, which in ſome Perſons reaches even to the Clavicles: With theſe there is a frequent Swooning, and a Fever and Looſeneſs enſue. If the Patient does not expire on the firſt Days, he in Time conſumes, and for Want of Nouriſhment grows tabid. But if the Weapon deſcend deeper within the Viſcera, the Blood flows copiouſly from that Part where the Wound was received, and a bilious Vomiting enſues: The Patient lies willingly and with ſome Pleaſure on his Belly: Hence a *Deliquium Animi* ariſes, which often returning with Violence, and at length bringing a cold Sweat kills the Patient.

Uſeful Obſervations in Diſorders of the Kidnies and Bladder.

WHEN the Kidnies are affected, they continue ill a long Time, eſpecially in Perſons more advanced in Years. An Inflammation on theſe Parts, which is however very rare, diſcovers itſelf by theſe Signs. There is a continued Fever, which ſeems one while to encreaſe, another while to diminiſh without any certain Order. There is a violent pulſating Pain, with a vehement Heat in the Back, a little above the Baſtard Ribs, which reaches, if the right Kidney be affected, from thence as far as the Liver, and downwards to the Bladder, Pubes and Thighs; and the more ſo if the Diſorder be ſeated in the left Kidney. This Pain is encreaſed by Sneezing and Coughing. Sometimes it teizes the Patient continually, at other Times it affords him ſome Intervals of Eaſe. In ſome it is indeed ſo outrageous, as that they are ſeized with fainting Fits, and weakned with profuſe Sweats. There is withal a great Loathing of Food, Nauſea, Pain of the Stomach, and frequent bilious Vomiting: The Belly is extreme coſtive, whereby it is likewiſe inflated, and continually forces up Wind by the Mouth: There is a Difficulty in making Water, with a continued Deſire to it, and it frequently comes away with a certain Heat, firſt thin and watery without any Sediment,

ment, after that it is redder, and at last thick and mucous. The extreme Parts especially the Feet very often grow cold, there is a Numbness in the adjacent Leg, and the Patient can hardly raise himself upright, or walk on his Feet. The Patients lie also with more Ease on the infirm Side, as also easier on the Back than on the Face. That this Kind of Disease is well concocted and almost entirely healed, we may know by the ceasing of the Pains, and by much thick Urine with a Sediment, which is good and capable of terminating the Distemper. But Danger is denounced, if there be a frequent Vomiting of Bile; and a Delirium is much more terrible, if it be likewise attended with a Coldness on the extreme Parts. Death is certain when the Kidney bursts by reason of the Greatness of the Swelling. But if the Inflammation should not yield to the Remedies applied, and the pulsating Pain and Weight continue in the Part, the Fever is not abated, but rather encreases, and there is also a great Difficulty in making Water with a frequent Inclination to it, we may conclude that a Suppuration is inwardly forming, which when it is compleated, the Weight indeed continues in the Kidney, but the Pain and Fever are abated. When the Abscess is ready to break, the Patient is seized with a Horror, and both the Fever and Pain return with more Vehemence. As soon as it has broke, those Symptoms immediately cease: Then the Urine flows thick, turbid,

bloody, and in large Quantity: With which if *Pus* that is white, ſmooth, equal, and of no ill Scent be diſcharged, it gives us certain Hopes of a perfect Recovery.

But if it turn likewiſe upon the Inteſtines, or being voided with the Urine it ſmells ill, is livid, and unequally mucous, it is bad, and ſignifies a violent Ulceration inwardly. And generally at this Time certain very ſmall Caruncles from the putrid Subſtance of the Kidnies like Hairs are brought away with the Urine. Sometimes when the Inflammation is ill cured, and the Time of Maturation elapſed, the Pain and Fever entirely ceaſe, but a hard Tumour with a great Weight is left on the Part. Which may be diſcovered by the ceaſing of the Pains without any Reſolution or Suppuration of the Matter, and from the Urine being diſcharged in ſmall Quantities and watery for a long Time, as alſo from the Hips and the more inferior Parts growing numbed, impotent and emaciated. This Caſe, is indeed, beyond all Hopes of being remedied; wherefore after ſome Time it turns into a Dropſy and proves fatal.

The Pain which ariſes from a Stone in the Kidnies is thus known: A very ſharp pungent Pain falls upon the Kidney, and continues fixed there, except that it ſometimes runs thro the Ilia to the Coxendix or the neareſt Teſticle. There is no Tumour outwardly: The Spine is difficultly bent:

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The Leg on the ſame Side with the affected Kidney, is in ſome Perſons contracted, and in others benumbed: There is a frequent Belching and a great Averſion to Food: When the Pains are very great there is a Vomiting, firſt of Phlegm, afterwards of yellow, and at laſt of greeniſh Bile, after which the Pains abate: The Belly is coſtive, and preſſing upon the Kidnies either by its Fæces or Flatulency, it augments the Pain; but if by Chance it be looſened, it voids bilious Excrements. If the Patient either lie on the Part aggrieved, or is empty of Food, the Pains are alleviated; but if he lie on the contrary Side, or if the Food which is taken in, begin to deſcend into the Inteſtines, they are greatly encreaſed,

The Urine, when the Fit is coming on, is in ſmall Quantities, thin and diluted, and afterwards, as the Pain encreaſes, is ſometimes wholly ſuppreſſed: But if the Stone be paſſed the Ureter, the Urine comes away thick and in great Quantities, in which there is much Sand, and ſometimes bigger and unequal Stones, or elſe broken Parts of them. Sometimes it bubbles, ſmells ill, and excites a frequent Micturition with a Senſe of Heat: It oftentimes alſo brings away Blood as it were along with it, eſpecially if hard Labour or Riding have preceded. Thoſe who are obnoxious to this Diſeaſe, void many times thick red Urine, with a thick tenacious Froth; which has one while a red, viſcid and ſandy Sediment

ment: Another while it continues turbid, and if ſtrained through a Cloth, it leaves Dregs in it like the forementioned Sediment. This Kind of Urine is often voided for many Years without any ill Conſequence, without any Pain in the Kidnies, and without any other Sign of a Stone: But at length a very acute Pain falls ſuddenly and unexpectedly upon the Kidnies, the Belly is alſo bound, and the Leg on that Side is benumbed. This Pain often returns at pretty long Intervals, and that ſometimes without diſcharging any Stone, and then the Urine is thick and turbid, and upon hard Riding, bloody. Piſſing of Blood has oftentimes ſolely diſcovered a Stone in the Kidnies, which was not ſignified either by any Pain, or other Symptom, and of which there was not even the leaſt Suſpicion. But when the Diſcharge of the Stone follows the Pain in the Kidney, if it light upon the Head of the Ureter, it cauſes the Urine to come away thin, in ſmall Quantities, and watery, and frequently occaſions a total Suppreſſion of it: But if the Stone return again into the Cavity of the Kidney, or if it be thrown forwards into the Bladder, that Urine is immediately voided, which I have juſt now deſcribed: Wherefore *Hippocrates* well obſerves, that a ſudden Pain in the Kidnies, with a Suppreſſion of Urine, portends the Diſcharge either of a Stone or thick Urine. Sometimes the Stone is ſo large that it cannot be drove out of the Subſtance

ſtance of the Kidney, wherein it was bred, into the Cavity. At this Time therefore there is ſcarce any Pain, but the Urine comes away, thick, turbid and red, as I have already deſcribed it. And if there ſhould happen to be any violent Exerciſe or hard Riding, there is not only this Kind of Urine, but it is likewiſe truly bloody, in which what ſubſides reſembles concreted Blood. When the Stone is propelled into the Cavity of the Kidney, if it be large it obſtructs the Ureter, and ſo intercepts the Urine itſelf, or elſe cauſes it to come away in ſmall Quantity, more thin than uſual, and watery; and alſo excites a very acute Pain: When it is ſo ſmall that it cannot much affect the Ureter, when it deſcends into it; alſo when it is large, and is contained in the Cavity of the Kidnies, and, being newly protruded thither from the Subſtance, has not yet reached the Ureter; the Urine is thick, turbid, red, or livid, and obſcure. Farther, Stones that are ſmooth and round are eaſier excluded, than ſuch as are long and rough. For they are not all of the ſame Size, Form or Roughneſs. Thoſe who have long laboured under nephritick Diſorders, as the Urinary Paſſages are in them more open, are moſtly tormented with Stones of the larger Size. Thoſe in whom this Diſtemper is recent, or who at leaſt have rarely had any Fits of it, are excruciated even with the very leaſt Stone. All Stones of the Kidnies

nies are generally of a reddiſh Colour: Tho' purulent Kidnies likewiſe diſcharge white Stones: It is certain too, that ſometimes they are either black or pale. The more the Urine in this Diſeaſe reſembles Water, and the longer it comes away in this Manner, and the leſs Sediment it has, the harder, more confirmed, and obſtinate are the Stones in the Kidnies. Tho' the Urine is ſcarce ever voided clear by thoſe Perſons, who are ſubject to very violent nephritick Pains. This Affliction is moſt frequent among fat and elderly Perſons, it hardly ever happens to Children, and but ſeldom to Adults. It is likewiſe rare among thoſe who vomit often and are not ſubject to be coſtive. As all Diſorders of the Kidnies very difficultly admit of a Cure in old Perſons, ſo this which we are now treating of, admits of none. It is likewiſe of all Diſtempers the moſt Hereditary, ſo that hardly any one ever eſcapes the Torment of the Stone, who happens to be born of nephritick Parents.

THE Kidnies are liable to be ulcerated not only from other Cauſes, but more eſpecially from the Stone; which is diſcovered by theſe Signs. The Urine is thick and turbid, and during Exerciſe of a higher Colour; if it be ſet by a while, it depoſits a thick Sediment, and the reſt of the Urine becomes generally clear. If the Ulcer be recent and ſimple, Blood comes away with the Urine old and foul, the Urine becomes thicker,

thicker, white, fœtid and truly purulent, not much unlike to Milk, and in this the *Pus* subsides: If the Ulcer be deeper-rooted and very foul, it turns into a Fistula, and in the same Kind of Urine which I just now mentioned, there subsides a certain viscid and tenacious Crassament, very like the Mucus of the Nose, or the White of an Egg: During this, the Kidney is oftentimes so eaten away, that the *Pus* as well as several Stones are included in its surrounding Membrane as in a Purse.

THE *Pus* being likewise transferred from hence into the Veins, brings on such an ill Habit of Body as usually precedes a Leucophlegmatia. Sometimes it also fluctuates between the Membranes of the Peritonæum: And now and then the whole Region of the Belly and Loins is filled with it, and it is sometimes voided sincere, either by Vomit or Stool. The Urine almost thro' the whole Course of the Disease, is one while easily discharged, another while it distills *guttatim*, and occasions a continual Irritation to make Water. A Pain seizes the Loins with some Sense of Weight. And in this Disease, if after any purulent Pissing, there should be a bloody one, it indicates a violent Erosion. An Ulcer in the Kidnies and Bladder, if it should prove (which generally happens) inveterate, is never healed.

THERE is one necessary Observation to be made in the Pissing of Blood, which proceeds

ceeds from the Kidnies. It is always ſo entirely mixed with the Urine, that this may be taken for diluted Blood; but then it ſubſides red, liquid, and not in the leaſt concreted. This I mention upon the Account of the Bladder, from whoſe Muſcle if any Blood ſhould flow, and falling upon the Cavity of the Bladder, it ſhould be thence diſcharged, it will not be equally mixed with the Urine, but becomes, after it has ſubſided, grumous: If the Stone ſhould occaſion a Piſſing of Blood; (which is almoſt always the Caſe, unleſs there has been any Fall or Blow) we muſt attend to thoſe Signs which are peculiar to that Diſtemper. Tho' oftentimes bloody Urine alone has diſcovered the Stone, without any Pain in the Kidnies, or any other Symptom of that Diſeaſe. If a Vein be inwardly burſt, the Blood flows plentifully, ſuddenly and unexpectedly: Whether a violent Fall has preceded, or there has been any Blow, or whether the Perſon has lifted any heavy Burthen, or fell from a high Place, or ſuffered any other Injury of this Kind. Much rarer is that Piſſing of Blood, which proceeds from an Imbecillity in the Kidnies, or which follows from the Veins opening in them, or from an infirm State of the Liver, or the Defect of a cuſtomary Evacuation, or from extreme Inactivity, or from the Amputation of any Member. Blood often diſtills from eroded and ulcerated Kidnies, and then it comes away in ſmall Quantities

tities and mixed with *Pus*, and this continues a long Time. Likewiſe when it proceeds from the Breaking of an Abſceſs in the Kidnies, it deſcends with the *Pus*; and is therefore thought to be voided from a broken Abſceſs, becauſe it does not continue for any Time, but generally ceaſes within three Days. A frequent Piſſing of Blood attended with a Fever and Pain, is by *Hippocrates* judged to be bad; tho' thence we may preſage a future purulent Piſſing, at which Time the Fever will be carried off. But if Blood be diſcharged with the Urine but ſeldom, and that without any Pain or Fever, it is not thought to be altogether ſo dangerous, by that Author; as generally happening from Laſſitude, which is thereby preſently ſolved.

THAT Flux of Urine, which is by the *Greeks*, termed Διαβήτης, is then ſaid to be preſent, when the Drink not long after it is taken in, without being hardly any Thing altered, is immediately diſcharged, under the Appearance of crude Water. The Patient is continually affected with a violent Drought, which is not in the leaſt appeaſed by Drinking: What is drank is often voided by Urine in much greater Quantities than it was taken in. Wherefore, the whole Body is by this Means conſumed, and as it were liquidated: Tho' in ſome Perſons the Loins, Hips, Teſticles, and eſpecially the Feet, are lightly ſwelled: And there likewiſe ſeems to be ſome Heat in the Viſcera. This Diſorder, when

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it happens, is very long, and proceeds from the Kidnies. When it is recent, it may ſometimes be cured, when inveterate, never, but liquidates and emaciates the Body. This Diſeaſe is very rare; I never obſerved it but once, when I practiſed Phyſick at *Tournay*.

When the Kidnies are wounded, the Pain deſcends to the Groin and Teſticles, there is a Difficulty in making Water, and that is bloody: Sometimes alſo Blood itſelf comes away.

Before I proceed to the Diſeaſes of the Bladder, I ſhall in this Place deſcribe the *Tabes dorſalis*. A very ſevere Kind of Diſeaſe, which the Moderns have not obſerved, it is clearly deſcribed by *Hippocrates*: I never once ſaw an Inſtance of it amongſt all my Patients. There is a violent and acute Pain in the Head, from whence in ſome Perſons Ants ſeem to be creeping down. There is a Pain likewiſe in the Neck, Loins and their Muſcles, and in the Joints of the Legs, ſo that ſometimes they cannot be inflected: The Belly is very coſtive, and the Urine difficultly diſcharged: And when either the Stools or Urine are voided, there comes away much liquid Semen, and the ſame happens during Sleep, whether the Patient have any Commerce with a Woman or not: The Semen likewiſe does not ſtay in the Uterus: In hard Journeys, and eſpecially if any high Place is to be aſcended the Body is extremely

extremely fatigued, the Reſpiration becomes difficult, and the Head is heavy, with a Ringing in the Ears. They who are thus affected, are free from a Fever, and tho' they do not want an Appetite to their Food, yet they receive no Benefit from it, but are entirely conſumed. In the Beginning of the Diſeaſe, the Patient finds himſelf pretty eaſy and well: But the more inveterate it grows, the more the Symptoms encreaſe, the Legs ſwell as it were with a Dropſy: In ſome Perſons Ulcers break forth on the Loins, ſome of which heal and others break out again: At length a violent Suffuſion ariſing, the Patient grows entirely blind. This Diſtemper chiefly attacks thoſe who are either new married, or have indulged themſelves too much in venereal Pleaſures. It has alſo been obſerved by ſome, to intermit ſometimes, and then to return again; and that every ſeven Years, as a certain Phyſician of my Acquaintance, who was affected and blinded by this Diſeaſe, remarked both in himſelf and ſeveral others.

The Stone in the Bladder is a very tormenting Diſeaſe, in that it continues long, and often returns at Intervals. When this happens, there is a great Senſe of Weight, (if the Stone be large) eſpecially if the Body be moved, and a certain Titillation about the Pubes and Perinæum: The Urine is diſcharged difficultly, with a conſtant Deſire of making Water, and there is a

Kind of Dripping, ſo that the Patient ſeems ſcarce able to contain his Urine: which yet, as ſoon as it has broke forth, is in a ſhort Time wholly intercepted, by which Means the Water is diſcharged at ſeveral Times. During this there is a Pain thro' the whole Paſſage of the Penis, and oftentimes it is very acute in the Glans only juſt after the Piſſing is ended. At this Time there ſeems to be a Neceſſity of going to Stool: In ſome the Urine is more readily diſcharged when erect, than when lying on their Backs, eſpecially if the Stone be large: In others when inclined, and they endeavour to alleviate their Pain by variouſly handling and extending the Penis. The Women often ſcratch the Pudenda with their Hands, and by applying one of their Fingers to the Neck of the Bladder ſometimes perceive the Stone. Many likewiſe in the midſt of their Pains often croſs their Feet one over another. If any Urine be diſcharged, it is white, thick and turbid, with a purulent and mucous Sediment. Sometimes Blood, or a certain bloody Concretion comes away with it. This Kind of Diſeaſe oftener happens to Children than to Adults: Oftener to Men than to Women. The Stone of the Bladder, is whiter, larger, and harder than that which is voided from the Kidnies. The ſmaller Stone is more eaſily convey'd to the Neck of the Bladder, and more obſtinately obſtructs the Urine than that which is larger: For this is eaſily repelled either by

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altering the Poſition of the Body, or by introducing an Inſtrument.

THERE is no ſmall Danger in every Kind of Stone; for the Patient, being overcome either by the Violence of the Pain, or by too great a Suppreſſion of Urine, from the Paſſages being obſtructed, may die. It has often been obſerved, that the Stone in the Bladder has occaſioned either a Teneſmus, or the Falling out of the lower Inteſtine. There have been many Inſtances of Perſons, who for a very long Time have harboured a Stone inwardly without any Pain.

NO Accident can happen to the Bladder ſo much to be dreaded as an Inflammation, which is not ſeated (as ſome may perhaps imagine) in the Coats of the Part, but rather in the Muſcle of the Neck. There is an acute Fever, with a violent burning Heat: There is a great Pain below on the Perinæum and above on the Pubes: Sometimes a Redneſs, Heat and Diſtenſion riſe upon theſe Parts, which reach even from the Pubes to the Navel: There is a frequent Deſire of going to Stool, with a very great Difficulty attending it: The Urine is very difficultly diſcharged, and oftentimes wholly ſuppreſſed for a long while, eſpecially if the Patient lie on his Back: Sometimes it diſtils *guttatim* with a violent Straining. To theſe are added Watchings, Delirium, bilious Vomiting, and a Coldneſs of the extreme Parts. The Inflammation of the Bladder is very

rare; but moſt incident to Children, being occaſioned by Injuries received from a Stone. The Danger is diminiſhed if the Urine be purulent, with a white and ſmooth Sediment. If the Pains in this Diſeaſe are not ſolved, and the Bladder is not mollified, the Patient is in Danger of dying in a ſhort Time. There is likewiſe no Hopes of eſcaping, if an acute Fever ſhould long continue, as alſo if the Urine and Stools ſhould be entirely ſuppreſſed: Or if the Urine exhibit no Signs of concoction, and the Pains encreaſe more and more every Day. At this Time there often happens a fatal Gangrene, from which hardly any one ever eſcaped. When the Diſeaſe begins to ſuppurate (which is certainly violent) all the Symptoms are greatly exaſperated. But if it ſhould happen to break before the Patient is loſt, the Pains and all other Symptoms abate, and the Urine comes away plentifully along with the *Pus*. This Abſceſs has been obſerved to open itſelf a Paſſage thro' the Perinæum, upon which Part the Urine falling is entirely carried off by the Anus.

FROM many Cauſes, but more particularly from the vehement Strainings in voiding the Stone, Blood is often diſcharged from the Bladder; it is not entirely diffuſed thro' the Urine, and when it has ſubſided with Standing, it concretes into a Maſs: Now and then ſome Part of this Blood comes away without any Diſcharge of Urine at all. And for the moſt Part, the Urine in this Diſorder

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is forced away gradually and as it were by Drops, and in paſſing creates a Pain, and in a Manner ſcalds the Root of the *Penis*. But if the Blood be concreted within the Bladder, it is generally attended with the moſt violent Symptoms: For there are frequent Swoonings, the Reſpiration becomes ſmall, and the Pulſe obſcure, ſmall and frequent: There likewiſe ariſes much Nauſea, Anxiety of Mind, and cold Sweats. By this Means the Patient is entirely weakned, and grows pale, as alſo cold on the extreme Parts. But for the moſt Part ſome violent Accident has firſt happened to the Bladder, which was followed by a Piſſing of Blood for ſome Time, and which ceaſed on a ſudden without any certain Cauſe. At this Time there is now and then a Rigor, which is immediately followed by the other Signs which have been juſt now enumerated. A Piſſing of Blood which is occaſioned by any Diſorder in the Bladder is more ſhortly cured than that which proceeds from the ſuperior Parts.

THE Diſeaſes of the Bladder are often ſucceeded by an Ulceration of it: This is larger indeed and more violent in the Muſcle of the Neck, after the Breaking of an Abſceſs which was left by an Inflammation, but milder in the Body of the Bladder; which Ulceration may be perhaps occaſioned either by the Acrimony of the Urine, or by ſome Injury received from a Stone.

If the Ulcer be derived from the Abſceſs, it is hollow and foul, whence ſometimes Sanies, at other times much fœtid *Pus* is diſcharged with thick Urine, in which that ſubſides upon ſtanding. But if the interior Pellicle of the Bladder be ſlightly abraded, the Urine is likewiſe thick, and brings away with it one while a ſmall Quantity of *Pus*, another while of Blood: And when the Ulcer is ſomewhat deeper fixed, it brings off Pellicles and a certain furfuraceous Subſtance. Theſe Pellicles are more thick, white and large, if the Ulcer be in the upper Part of the Bladder: If near the Paſſage of the Urine they are leſs white, thinner and ſmaller. In this Caſe there is ſo great an Inclination to make Water, that the Urine can hardly be contained, with a violent Pain on the Pubes and Perinæum, which for the moſt Part follows immediately upon having made Water. This Pain is likewiſe encreaſed, if the Patient raiſe himſelf upright. But if the Ulcer be ſpreading and corroſive, Blood is alſo ſometimes obſerved in the Urine, mixed with Sanies and fœtid *Pus*. If the Ulcer be extreme foul, and eſpecially if it ariſe from a Gonorrhæa, certain Filaments are very often obſerved in the Urine, which are at firſt thin, but afterwards ſo thick, as even to thicken the Urine: At laſt a thick and viſcid Kind of Mucus, like the White of an Egg, ſubſides. The Filaments juſt now mentioned are diſcharged with the Urine a long Time after the Ulcer is healed.

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BETWEEN Ulcers in the Kidnies and Bladder there is this Difference. When the Kidnies are thus affected, there is not so much Difficulty in making Water, and what is abraded from them is red, whether small Caruncles be brought away, or Filaments like Hairs: There is likewise less Pain, and Blood is oftener discharged, both in greater Quantities, and more intimately mixed with the Urine. But when the Bladder is ulcerated, there is both a greater Inclination, as also a greater Difficulty in making Water. Whatever comes away, is white (unless this however should descend hither from the Kidnies) and the Pains are more violent: There is a less Quantity of Blood, and less mixed with the Urine, discharged. Farther, if the Ulcer be seated in the Ureter, the Urine is thick, participating either of Blood or else *Pus*, which swims in the Urine under the Appearance of Hairs. In this Case Pellicles and a certain furfuraceous Substance are likewise discharged; but the Pain is fixed betwen the Kidnies and the Pubes. Ulcers in the Kidnies, and other Passages of the Urine are more readily healed, than those in the Bladder, which in old Persons are never cured, and in others very difficultly.

THERE are often various Disorders which attend the making of Water. For it either distills gradually, or is voided with extreme Difficulty, or is in the last Place wholly suppressed. The first is called by the *Greeks* Στραγγεία,

Στραγγουρία, the second Δυσουρία, and the last Ἰσχουρία. The two former may be mild. The third is very severe, and if it continue any Length of Time, fatal. When the Obstruction is fixed in the Superior Ducts of the Urine, there is some Sense of Pain and Weight in the Loins, and Signs of the Kidnies being affected, have preceded: The Bladder being empty is neither pained nor swelled, neither does it void any Urine upon the Introduction of the Catheter, wherefore there is not the least Inclination to make Water. On the contrary, this is very great, when the Neck of the Bladder being obstructed impedes the Urine; there is then a Pain and Swelling all over the Pubes, and upon introducing the Instrument, much Urine pours forth. If a Tenesmus be added to a Suppression of the Urine, the Patient dies within the seventh Day, unless a Fever intervene, which by its Liquefaction may open a Passage for the Urine. But in the Dysury the Urine is voided with Difficulty and great Pain, and that sometimes plentifully, at other Times in small Quantity. It is called a Strangury, when the Urine is pressed forth by Drops, with a continued Straining, and sometimes with a vehement Pain, at other Times with none at all. If this Disorder be free from Pain, it is near a-kin to the Ischury, if not, to the Dysury. If the Strangury should be attended with the Iliack Passion, it carries off the Patient within seven Days, unless

unleſs by the Intervention of a Fever, the Urine ſhould flow plentifully. This Diſorder continues very long in old Perſons, ſhorter in thoſe who are younger, and is to neither fatal, unleſs ſome Accident ſhould intervene. But if it be occaſioned by any grumous Blood being inwardly lodged, it is uſually attended with very violent Symptoms: For the Patient loſes his natural Colour, the Pulſe becomes ſmall, frequent, languid, and ſometimes wholly ceaſes: Hereto are added a Rigor, Fever, Nauſea, Swoonings, cold Sweats, and other Symptoms of that Kind, which we have already mentioned to proceed from Blood being concreted within the Bladder. Farther, the Urine comes away ſometimes involuntarily, without any Senſe of Acrimony or Pain, which Diſorder is abſolutely incurable in old Age. If this ſhould happen in acute Fevers, when the Strength is infirm, it is fatal.

When the Bladder has received any Wound, there is a Pain in the Groin, and the Parts near the Pubes are diſtended. The Urine comes away thro' the Wound, or at leaſt Blood is diſcharged inſtead of Urine. To theſe are added bilious Vomitings, Singultus, Delirium, and their Concomitant Death.

Uſeful

Useful Observations in Diseases of the genital Parts.

THAT Flux of Semen, which is called a Gonorrhæa is always tedious, and oftentimes very dangerous. The Semen passes off involuntarily and with great Excess, without any Erection, the Use of Venery or nocturnal Images; and this sometimes so long and in so great a Quantity, that the Patient is at length consumed. For it gradually weakens the Body, and emaciates it daily, in all the other Parts, but more especially about the Loins. And the Semen which is thus discharged, is crude, watery, liquid, thin, and not very white. And this Disorder chiefly attacks those Persons who have wasted their Youth in venereal Pleasures. It began in our Time to be contagious, a very proper Scourge for Debauchees, and is the direct Path to the venereal Disease. In this Case there is a continued Gleet of a certain virulent white or yellow Matter, which after some Space of Time becomes very putrid, and acrimonious, so that it ulcerates even the Inside of the *Penis* itself. And when this is done, it is manifested by the Pain, which affects the *Penis*, when it is erected, in such a Manner, that it seems to be bound down with a Cord. This Pain discovers itself more particularly, when the Patient either begins or ceases to make Water, so that the Per-

Perſon may be thought to labour under either a Dyſury or the Stone. This Diſeaſe is incident both to Men and Women: But is more frequent among the latter, and more difficultly removed. In this it agrees with the *Fluor Albus*, that the Humour is continually diſcharged: But differs from it on the other Hand, in that this is much thicker, and for the moſt Part raiſes an Ulcer, by its Acrimony and Virulence: Add to this, that during the flowing of the Menſes, this Flux does not ceaſe, when the *Fluor Albus* uſually ceaſes both in the Menſtrua and for ſome ſhort Time after.

EVERY Ulcer on the Side of the *Penis* uſually continues for a long while, and becomes ſometimes ſo hollow, eſpecially if there be any venereal Taint, as to penetrate and encreaſe even on the outward Skin. If this Ulcer be neglected, there often ariſes a fleſhy Tubercle in the Urethra, as alſo a certain Callus reſembling a Wart, from the collected Filth: At this Time the Urine is either retained, or does not come away with a full Stream, and the Patient is troubled in this Manner let his Body be in what Poſition ſoever: The Tubercle may be diſcovered either by compreſſing the *Penis*, or introducing an Inſtrument.

THERE is alſo another Diſorder in the *Penis*, whereby it is continually erected, with a certain laſcivious Palpitation, and many libidinous Deſires; this is termed by the *Greeks*

Greeks Σατυρίασις. There is another also much of this Kind, called Περιαπισμὸς, in which the *Penis* is continually erect, without any Inclinations to Venery, and is preternaturally enlarged, as if it were distended with a Kind of *Tetanus*. This Disorder very seldom happens, but yet I find some of Opinion that it may prove fatal.

We must in the next Place proceed to the Diseases incident to the Scrotum, among which is an Inflammation, and a hard Swelling without this, but especially the Hernia, by the *Greeks* called Κήλη. Of this there are many Forms, as also many Causes. When the Peritonæum is burst or else relaxed, either the Omentum or the Intestine immediately falls out, and gradually sinks from the Groin (unless it should continue in this Part, and form a Bubonocele) into the Scrotum. It is common to have an evident Tumour either in the Scrotum or Groin, which does not continue long, but encreases with Running, Labour, Fullness, and Retaining the Breath; and goes down again either spontaneously, or with a gentle Thrust of the Fingers, if the Person be laid on his Back. If the Omentum descend, it very difficultly returns again, whether the Body be fasting, or whether its Figure and Position be varied: But when it does return, it is done without the least murmuring Noise. If this Tumour be touched, it is unequal, soft, and slippery; and is called after the *Greek* Name *Epiplocele*: But

But if the Inteſtine fall into the Scrotum, then it is termed *Enterocele.* This Tumour is without Pain, and without Inflammation, and is one while leſſened, another while encreaſed; and if the Patient lie any while on his Back, whether he be aſleep, or awake, it ſometimes wholly diſappears; but it encreaſes upon making any great Outcry, Satiety, and violent Motion of the Body, as alſo by lifting up any heavy Weight: It is contracted by Cold, and relaxed by Heat. At this Time the Scrotum is round and ſmooth: Whatever be in it, if preſſed, is ſlippery, and returns one while ſpontaneouſly, another while with a light Preſſure of the Finger, making a certain Grumbling, or flatulent Murmur. When this Diſorder becomes very violent, the Inteſtine grows ſo large by the Fæces lodging in it, that it cannot be reduced, whence a grievous Iliack Paſſion ariſes, which often carries off the Patient. In this Diſorder the Scrotum, Groin and Abdomen, are ſeized with great Pains. Between whiles the Stomach is affected, and there enſue bilious Vomitings, firſt of a dark Yellow, then green, and ſometimes of black Choler itſelf. Farther, we may diſtinguiſh by certain Signs, whether the Hernia ariſe from the Rupture of the Peritonæum, or from the Relaxation of it. if the Inteſtine fall out immediately and wholly, preceded by ſome violent Cauſe, the Tumour is both very large and unequal: And if when the Patient is laid on his

his Back, the Inteſtine being preſſed, ſhould go up again with much grumbling Sound, and the Body being erected, it ſhould immediately fall down again, either upon Coughing or retaining the Breath, we may then conclude that the Peritonæum is burſt. But the Signs of a Relaxation are theſe: In a longer Tract of Time, the Inteſtine deſcends gradually more and more, let it be from what Cauſe it will; the Tumour appears to be more even and to lie deeper, neither does what deſcends return with any murmuring Noiſe, neither does it eaſily fall down again when the Patient has raiſed himſelf upright. Beſides, a Hernia from a Relaxation, hardly ever proceeds beyond the Groin, but from a Rupture it almoſt always falls into the Scrotum. A Hernia occaſioned by a Rupture, is eaſily removed at the Beginning, within the firſt ſeven Days perhaps, and eſpecially in Children: When it is become inveterate it can hardly be ever cured, unleſs by manual Operation. Which Remedy is however dangerous and doubtful. It muſt be noted farther, that ſometimes the Omentum and the Inteſtine may deſcend both together, which Diſorder is by the *Greeks* called Ἐπιπλοέντερο-κήλη, that is, a Hernia of the Omentum and Inteſtine. But other Kinds of Hernia often happen to the Scrotum, when the Peritonæum is not in the leaſt injured. For ſometimes a watery Humour inwardly collected, ſometimes the Growth of ſome fleſhy Subſtance,

at

at other Times a varicous Tumour have given Riſe to this Diſorder. If there be an aqueous Hernia, by the *Greeeks* called Υδροκήλη, the Tumour, as to itſelf, is free from all Pain, and firmly fixed in the diſtended Scrotum; it is indeed ſomewhat leſſened by Faſting, or by a Feveriſhneſs, or in the Day-time (eſpecially in Children) but is never wholly removed. If the Quantity of Humour be but ſmall, it gives way upon touching it; but if it be much encreaſed, and become very full and tight, it reſiſts the Finger, and by holding a Light againſt it, it appears pellucid like Horn. And if the Symptoms, which we have juſt now mentioned, are obſerved in both Parts of theſe Scrotum, it is plain that this Hernia is double. When the Water, by having been inwardly retained a long Time, becomes putrid, it alſo ſometimes corrupts the Teſticle itſelf. And this Kind of Hernia is moſtly incident to thoſe who labour under a Cacochymy, bnt much more to thoſe who are inclinable to a Dropſy. Wherefore if the Humour be drawn off by the Help of any Inſtrument, it eaſily returns afreſh, unleſs a Cure be likewiſe applied to the whole Body. To this Kind of watry Hernia it may not be amiſs to add that, which ariſing from Flatulencies excites a great Pain by its violent Diſtenſion. This is by ſome called a flatulent Hernia. Rarely indeed, tho' ſometimes a hard fleſhy Subſtance grows within the Coats of the Teſticles, which is termed by

by the *Greeks* Σαρκοκήλη, that is, a fleshy Hernia: The Swelling in this is likewise perpetual, as in the former, but heavier in Weight, as also harder, less discernable, and every where of the same Colour, and does not sound when struck, and is also much longer in contracting. There remains now the varicous Hernia, which is by the *Greeks*, called Κιρσοκήλη; this is a hard oblong Tumour resembling a Bunch of Twigs, and very difficultly yields to any Remedies.

The Testicles are also sometimes seized with an Inflammation: And then there is an acute Pain, Redness, Heat, and hard Tumour: All which discover themselves more outwardly, if the Inflammation be spread over the Scrotum: But one more obscure, and are rather exposed by the Touch than the Sight, if the Disorder lie deep and affects only the Testicle. According as the Inflammation is more or less violent, there is sometimes a Fever, and sometimes not. After this Disease has been ill-cured, there often remains a hard Tumour, without any Pain, Heat or Redness, which Tumour is hardly ever removed.

We shall now pass to the Diseases of the Uterus, of which there are great Variety, and these generally troublesome and very dangerous. The most violent Disorder incident to this Part, is an Inflammation, that indeed which seizes not only its Neck, but also (as often happens) the whole Uterus itself. The

Part

Part is affected with a vehement pulſating Pain: And this if the fore Part of the Uterus is moſt affected, reaches to the Pubes, and creates either a Dyſury or a Strangury; if the back Parts are inflamed, the Stools are ſuppreſſed, and a Pain ſeizes the Loins. But if the Diſorder lie more on the Side, the Groin is immediately diſtended, and the Legs are difficultly moved. There is always an acute Fever, and great Pain of the Head, and that more on the Forepart, and about the Root of the Eyes. The lower Part of the Belly, Pubes, Hip, and adjacent Parts, are pained with a Weight and Diſtenſion. The Loins are alſo much infeſted with Heat. The Stomach begins to be affected with a Pain, Nauſea, and Singultus. The Woman can ſcarce endure to change the Poſture of her Body, ſhe can neither ſit down nor ſtand up, unleſs with great Difficultly, nor walk without Halting. She lies very uneaſy on the ſound Side. Farther, if the Neck of the Uterus be the Seat of the Inflammation, there is a Pain in the Abdomen, and the Os Uteri is hard, hot, and cloſed up. And this Caſe may indeed admit of ſome Cure, the former hardly any at all. Sometimes an Inflammation in the Uterus turns into a hard inſenſible Tumour: more rarely into a Cancer: Oftener into an Abſceſs, which as ſoon as it begins to be formed, encreaſes the pulſating Pain and the Fever, of this the Fits are frequent and attended with Horror,

but without any certain Order. When the *Pus* is formed, these Symptoms immediately abate, and encrease again when the Abscess is broke: And then the Urine is sometimes suppressed; at other Times the Stools: Sometimes a Tumour arises near the Pubes, and there is an inward Sensation of much fluctuating Matter. At this Time the *Pus* breaks forth, one while into the Cavity of the Uterus, another while into the Cavity of the Abdomen, and there fixing among the Intestines, distends the lower Belly with its Quantity, and loads it as it were with a certain Weight. But if the *Pus* which is discharged outwardly by the Neck of the Uterus, is white, well digested and not of an ill Scent, the Woman will recover: But if it be virulent, stinking, and variegated with many Colours, we may then conclude that the Case is dangerous. When the Abscess is broke and evacuated, a foul Ulcer remains; in which a sharp biting Pain arises, a sanious and filthy Matter is discharged, not always of the same Quantity, Substance, and Colour: One while it has a very ill Scent, another while none at all, so that it may be supposed to proceed from the *Fluor Albus*, which comes away in that Manner. If the Disorder be seated in the Neck of the Uterus, it may be discovered even by the Touch: But if it be fixed higher up, we must collect the Signs from what is discharged. Therefore if a simple Ulcer, which did not arise from the Breaking

ing of an Abſceſs, has abraded or moderate excavated the inner Pellicle of the Uterus, or its Neck, the Humour that is voided is in ſmall Quantity, equal, thick, and white. But if there be a foul Ulcer, occaſioned by the Breaking of an Abſceſs, more Humour is indeed diſcharged, but with leſs Pain. Sometimes an Ulcer in the Uterus becomes ſo malignant, that it ſpreads and corrodes all the neighbouring Parts. This is called by the *Greeks* Νομὴ, and is much more foul, fœtid and obſtinate than the former. This Caſe, as well as the hard and long Tumour of the Uterus, eaſily turns into a Cancer. At this Time a Pain ariſes in the Groin, Bottom of the Belly, Abdomen and Loins: There ſeems to be a heavy Load within, like a great Weight, to which is joined a Fever, yet not ſo burning as that in the Inflammation of the Uterus: In the laſt Place, the Diſeaſe itſelf is of very long Continuance. When an Ulceration likewiſe comes upon a Cancer, the Ulcer, beſides its being hard and painful, its Lips likewiſe ſwell, and become livid, hard and rough, from the Sordes being concreted. What flows from it is extreme fœtid, thin, black, and ſometimes of a dark Red. This Diſtemper, even according to the Judgment of *Hippocrates*, is beyond the Reach of all Medicine.

Sometimes a hard Tumour may ariſe in the Uterus, from an Inflammation which is neither ſolved, nor turned into an Abſceſs,

as also from other Causes: And that one while all over the Uterus, another while only in one Part of it. This Tumour feels hard and resists the Touch, without any Pain at all, or at least a very dull one, but either the Urine or Stools are very difficultly voided: And when the Woman stands upright, a heavy Weight presses upon the *Pudenda*, and seems ready to fall out; the whole Body becomes impotent, and is difficultly moved, especially the lower Parts of it, so that all Walking is upon this Account extreme difficult. Sometimes the Belly is inflated, and puts on the Appearance of a Dropsy, which however does now and then ensue.

THE Uterus is likewise from certain Causes inflated, and has been observed to continue so in some Women thro' their whole Lives. There is a great Swelling, Distension, and Pain in the Bottom of the Belly: This Pain reaches even to the Diaphragm and Stomach: It likewise attacks both the Sides, and often one Groin and sometimes both; as also the Navel, Loins, Pubes, and sometimes the Head itself by Consent. Oftentimes a *Flatus* is manifestly discharged thro' the *Pudenda*, in Women, and murmuring rattling Noises are heard, exactly like those which are excited in the Dysentery. And the Belly being struck by the Finger, utters a Sound like that of a Drum, especially if the Cavity of the Uterus be filled with

with Wind. But if this Flatus be fixed in the Pores of the Substance of the Uterus, it excites very exquisite Pain, and very difficultly yields to any Remedy. This Disease for the most Part attacks Women in Childbed, and that not without much Danger.

THERE is also a Kind of Dropsy incident to the Uterus, when its Cavity is wholly filled with Water. The Belly is inflated, with a great Sense of Weight, and being turned on any Side it utters the Sound of a Humour fluctuating within. Some learned Men have observed, that this Humour is purged off monthly from the Uterus, in some Women, and that without any ill Consequence.

NOW follows that Disorder of the Uterus, which is by the *Greeks* called Μύλη, and by us a Mole, and which cannot happen to a Woman, without the Use of a Man. A mishapen Mass of Flesh is bred in the Uterus, surrounded with a Skin or Membrane, and has many Veins within it, yet without Viscera, Intestines, or Bones. This Mass receiving Nourishment thro' its own Veins, encreases daily, and fills the whole Uterus with so great a Bulk, as to make us imagine that there is a Fœtus of eight Months Growth. This Mass has sometimes, tho' rarely, continued inwardly all the Life long without any ill Consequence: In some few it comes away after four or five Years: But is for the most Part, excluded on the third

or fourth Month, and eludes all the Hopes they had conceived of being pregnant. For in this Disorder, the Menses are retained, the Breasts swell, there is a Loathing of Food, the Face is discoloured, and the Belly daily grows bigger. But as in these Signs it so far agrees with Pregnancy, so on the other Hand, it differs from it in this, that this Tumour is harder, and what is inwardly contained has no Motion of its own, but remains fixed by its own Weight, and is never moved unless it be pressed, or the Woman turn herself upon her Side. For then it does not fall like a Fœtus, with an easy and gentle Impulse, but rowls violently on that Side to which the Body inclines. Besides, sometimes this unformed Mass is excluded, or much Blood with the Humours inwardly collected, and sometimes also a Flatus. And from this Flatus arise, in some Women, the same Pains and Bearing down as usually do in Child-birth. In this Disease the Body is always extenuated: Walking becomes difficult, so that it seems as if some Weight hnug down from the Uterus: And at length when the Liver begins likewise to be affected, the Dropsy ensues. All Moles, unless they are cured in the Beginning, are very difficultly removed. When the Menses are retained without any Signs of Pregnancy, and the Belly likewise swells without any Dropsy, we may then conclude that there is some-

thing

thing preternatural in the Uterus, namely a falſe Conception, Mole, or Flatus.

THE Uterus may likewiſe be removed out of its Place, one while it aſcends, another while deſcends, or falls out, or elſe inclines ſometimes to one Side or the other. Its Aſcent is in ſome Women ſo very violent, that it is carried up like a Globe, as far as the Stomach, and preſſes againſt it very hard, from whence it may be thruſt down again into its proper Place, by the Hand. When this Diſorder happens, the Woman has a Pain in the Hypocondria and is ſeized with a Shortneſs of Breath and Fainting, and that without any Alienation of the Underſtanding. But when the Uterus begins to deſcend; the Woman, if ſhe be erect, feels a great Weight fall upon the Pudenda, which may be touched with the Finger: If ſhe lie upon her Back, or go toStool, ſhe perceives a Preſſure on the Inteſtinum rectum; if on her Face ſhe makes Water with Difficulty. This Diſeaſe is much more violent, when the Uterus being inverted (which yet rarely happens) falls outwards. At which Time there is a great Pain on the Pubes, and Spaſms and Tremors ſometimes enſue. The Bottom of the Uterus falls outwards, either of the Bigneſs of a Gooſe or Oſtrich's Egg, may be readily felt by introducing the Finger. If it continue long in this Condition, hardly any Aſſiſtance can reſcue the Woman out of the Danger. But

if the Uterus being convulſed, ſhould be forced either upon the right or left Groin, the whole Leg, and eſpecially the Thigh, grows torpid and cold, the Groin, and ſometimes the Coxendix are afflicted with a violent Pain. This Pain encreaſing vehemently, brings on a Diſtenſion of the Nerves and a *Furor Uterinus.*

No inconſiderable Diſorder, is a Suffocation of the Uterus, by the *Greeks* called Πνίξ Ὑστερική. At firſt there is much Nauſea, but ſeldom any Vomiting: A Loſs of Appetite enſues, with a certain Grumbling in the Belly, tho' this does not always attend; after this the Reſpiration begins to be difficult, quick, and ſhort; which after ſome Time becomes ſo very ſtraight, that the Fauces ſeem to be bound up, with a great Dread of Suffocation; during which there is a Faintneſs, which however hardly alters the Pulſe. At length the Head, the Seat of the Mind begins to be affected, which is diſturbed by Anger, Fear, and the like Paſſions. Very often there happens a Kind of Coma, in which the Woman is mute, and growing very pale and cloſing her Eyes ſhe falls down, and lies void of all Senſe and Motion, as if ſeized with an Epileptick Fit. The Breath now is extreme ſmall, rare and ſcarcely diſcernible, ſo that there hardly ſeems to be any remaining within her: The Pulſe ſinks likewiſe in the ſame Manner, tho, this (when the Diſeaſe is more moderate) for the moſt Part continues un-

unchanged: When the Fit remits, the Uterus is gradually relaxed, and emits ſome Humour; then there is a murmuring Noiſe in the Inteſtines: The Eyes open: The Cheeks redden; and the Woman immediately recovers her Underſtanding, Senſe and Motion; ſo that ſhe can remember almoſt every Thing that happened to her. This Diſeaſe differs from the Epilepſy, in that the Eyes are neither turned up, neither does the Mouth foam, nor are the Nerves very much diſtended. A Suffocation occaſioned by the Uterus, in many Women, by frequently returning, becomes perpetual: In others it proves fatal either immediately in the Fit itſelf, or in a few Hours after it: At which Time it is generally attended with theſe Symptoms: The Fit continues a long while: The Reſpiration becomes extremely difficult, and the Pulſe quick and irregular, tho' this ſometimes is alſo wholly aboliſhed: Beſides this, all Senſe and Motion are loſt: The whole Body is imbrued with cold Sweats, after which a Syncope enſues, and then Death. The Diſtemper is leſs ſevere, in which there are all thoſe Symptoms we juſt now related, except the Diſorder of the Breath: It is again leſs ſevere, when not only the Reſpiration but the Senſe and Motion alſo remain entire, tho' the other Symptoms are preſent. This Diſtemper returns at certain Intervals or Periods like the Epilepſy, and happens chiefly in Winter and Autumn, and that to Girls of

a hot and moiſt Conſtitution, and to Widows who contrary to Cuſtom have been long deprived of the Converſation of a Man, as alſo to thoſe Women who have been rendered Barren rather by Medicine than Age.

We muſt in the next Place proceed to thoſe Obſervations which relate to the Menſes. Therefore when they come down in due Quantity, of an equal and good Colour, and nearly on the ſame Days of the Month, they are reckoned very good, and according to Nature. When theſe are upon breaking forth, the Woman is ſeized with a Horror, Laſſitude, and Pain in the Head and Loins. But when they are either too much ſuppreſſed, or immoderately diſcharged, they threaten ſome violent Diſeaſes. For that Aphoriſm of *Hippocrates* is founded upon Reaſon: That in both Caſes, when the Menſes are either unduly retained, or flow profuſely, they occaſion Diſeaſes of the Uterus. When they are retained beyond Meaſure, and beyond the Age of the Woman, the whole Body becomes heavy, and there is a Pain and Heavineſs in the Head, eſpecially in the fore Part of it: This Pain reaches alſo to the Neck, Scapulæ, Loins, and the Root of the Eyes. Oftentimes the Woman is ſeized with a Horror, Nauſea, and Loathing of Food, as if ſhe had conceived: And is ſometimes feveriſh, ſorrowful, and uneaſy, and ſometimes covets the Converſation of a Man: The Urine is thick, turbid, red, and ſometimes blackiſh.

A

A long Suppreſſion of the Menſes lays the Foundation for ſeveral violent Diſtempers, as of Madneſs, Melancholy, Epilepſy, Palſy, Dimneſs of Sight, Cough, difficult Reſpiration, Hyſterick Fits, hard Tumours of the Viſcera, Dropſy, Gout, Palpitation of the Heart, Syncope, and the like. Any Woman who has Milk, if ſhe hath neither lately lain in, nor be with Child, labours under an Obſtruction of the Menſes: Which if it continue long, there muſt neceſſarily enſue either very ſevere Pains in the Head, or ſome Diſeaſe in ſome other Part. But if at this Time there be a Flux of Blood from the Noſe, every Thing is ſafe. Thoſe Women who never had any Children, ſuffer ſooner and more ſeverely from a Retention of the Menſes, than thoſe who have; for in theſe the Veſſels ſubſervient to this Flux are more open, than in the others.

IT is equally to be dreaded, if the Menſes flow in too great a Quantity, whereby the whole Body is rendred infirm and diſcoloured: The Appetite and Digeſtion decay: Feveriſh Heats frequently ariſe; in the laſt Place, the Feet are inflated with a ſoft Tumour, from whence enſues the Dropſy itſelf. This Kind of Flux, if it proceed from the Birth of a large Child, is generally ſafe, and ceaſes of itſelf. If it follow an Abortion, it may diſpirit the Woman, and bring on ſudden Death. If a large Vein be inwardly burſt or opened, the Blood flows very

ry profuſely: If a ſmaller Vein, it flows more gradually and in no great Quantity. But if the Vein be eroded, the Blood comes away not only gradually, but alſo with a Senſe of Pain. The Menſtrua continue longer upon Women of a moiſt Temperament, and theſe ſooner ſwell upon a Suppreſſion.

SOMETHING akin to this Flux is that, which by the *Latins* is called *Fluor Albus*, and the *Greeks* Ῥοῦς Γυναικεῖος. However, in this pure Blood is not diſcharged, but ſome corrupt Humour, and that continually, without any certain Order or Periods. What flows away, is one while clear like Gelly, another while yellow or pale, and that acrimonious, ſometimes it has a very ill Scent, at other times none at all: In both Diſorders the Woman loſes her Colour, has no Appetite, and finds no Benefit from the Food ſhe takes in; her Eyes (if the Flux be of any long ſtanding) grow tumid, and Reſpiration difficult. The *Fluor Albus* not only attacks Women of riper Years, but even young Girls, which may be known by their pale and ſorrowful Countenance.

IN the laſt Place, we muſt make ſome Remarks upon what may happen from an Abortion, or a hard Labour. But it may not be amiſs to ſay ſomething firſt concerning Conception. Firſt then we muſt obſerve, that a Woman cannot conceive, whoſe Uterus is too cold and moiſt, for in this the *Semen Maſculinum* is extinguiſhed: Nor ſhe whoſe Uterus is

too

too hot and dry, for the *Semen*, for Wan of Nourishment, is then corrupted: Neither do very fat Women conceive, in whom the Os Uteri is compressed by the Omentum, nor those who are very thin and lean. If when the menstrual Purgation is over, the Os Uteri does not dry, but continues moist, it is a Sign that there can be yet no Conception. If any Woman imagine she hath conceived, but has not, and is deceived for many Months, by the ceasing of the Menses, and the Swelling of her Belly; she is seized with a Pain in the Head and Præcordia, and has no Milk, or but in a small Quantity, and that watery. But she who has conceived, is free from these Pains (unless they have been familiar to her) and has tolerable good Milk. The fertile Woman enjoys a better State of Health, but sooner becomes an old Woman: and the barren Woman longer preserves the Comelineſs of Youth, but is more infirm. When a Woman has conceived, she is seized with a Horror, and feels the Uterus contract with a Kind of Titillation, after which the *Os Tincæ* is so closed, as not to admit the Point of a Needle, and after some Time retires upwards so far as hardly to be reached by the Midwife's Finger. During this the Menses are suppressed, unless on the first or last Months Blood should be discharged, not from the Uterus, but (as it happens in Virgins) from the Vagina, and that without any Inconvenience to the Fœtus. After this

the

the Breasts grow bigger, the Sides and Loins are stretched outwards, and the whole Belly swells without any troublesome Sensation of Pain: So that by this a true Conception may be distinguished either from a Mole, or a Dropsy of the Uterus. At this Time the Forehead is sometimes spotted either with yellow or livid Spots, and the Circle round the Eyes appears languid and of a watery Lividness: The Urine is yellow or sublivid, as also thick and turbid, and bubbles if lightly shook, or sends little Grains down from the Top to the Bottom: Its Sediment is thick, and ill-joined like Wool that is combed: The Urine, after the Drinking of white Wine, becomes like the Liquor wherein Beans have been boiled. At length the Fœtus begins to move, which gives us very evident Marks of its Existence; which happens to some sooner, and others later; but to the Generality about the Middle of their Pregnancy. And these are the certain Signs of a Fœtus's being conceived; which before it be perfected, and brought into the World, may occasion many Disorders to its Mother. Who if she has been before subject to any Disease, begins to feel it again on the second or third Month. Likewise she becomes at this Time extremely indolent, and labours under a Pain and Heaviness of the Loins, Groin, and Thighs, and is much oppressed with Sleep, even in the Day-time. Besides this, she loses her Appetite, and is troubled with a great Nausea, and sometimes

also

alſo with a Vomiting either of Bile or Phlegm. If this Vomiting does not enſue, the Reſpiration becomes difficult, attended with a Vertigo, as alſo an Anxiety of Mind and Faintneſs: Sometimes alſo ſhe is ſeized with an abſurd Appetite of things very improper, as of Earth, Coals, Chalk, and the like. But all theſe Symptoms generally ceaſe after the fourth or fifth Month of her Pregnancy. Farther, when the Woman begins to grow big, if the Breaſts ſuddenly grow lank, Abortion is threatened. If when ſhe bears Twins, one of her Breaſts ſhould be extenuated, ſhe miſcarries of one Child, and that a Male if the right Breaſt be leſſened, but a Female if the left. For on this Side the Females are generally born, and the Males on the other. Abortion is equally to be dreaded, if a pregnant Woman ſhould be ſeized with an acute Diſeaſe, or emptied of her Blood by opening a Vein, or over-purged by violent Medicines, eſpecially if ſhe be prety far advanced in her Pregnancy, and the Fœtus be grown large. Beſides, a Looſeneſs may cauſe an Abortion without any Medicine at all. If the Hæmorhoids flow in pregnant Women, it is bad: An Eryſipelas in the Womb is dangerous: Alſo if Milk flow out of the Breaſts, and eſpecially if it be watery, it argues that what the Woman bears is weak. Hard Breaſts ſignify the Child to be found. If a Woman big with Child have her Menſes according to Cuſtom, the Fœtus cannot

be

be found. If ſhe be ſeized with a Fever, or be very much emaciated, without any manifeſt Cauſe, ſhe will have a dangerous and hard Labour, or elſe miſcarrying will by that Means alſo be expoſed to Danger. But every Woman preternaturally thin miſcarries, till ſhe comes to be in ſomewhat better plight. And if any Woman that is moderately corpulent, miſcarry on the third or fourth Month of her Pregnancy, without any apparent Cauſe, the Cotyledons in this Woman are full of a lentous Humour, ſo that they cannot contain the Fœtus, which now begins to grow heavy. If any Accident happen to a pregnant Woman, ſhe need not be in the leaſt diſheartned, if her Breaſts do not fall away. If the Fœtus be dead there is no Motion inwardly, which there uſed frequently to be before: The Belly grows heavy, and ſeems inclinable to fall forwards; it is likewiſe tumified and diſtended as if oppreſſed with a Dropſy, and loaded with the Weight of the Cadaver: The Sides alſo grow cold, that were before hot: There is likewiſe a great Pain about the Navel, with a Gnawing in the Stomach: The Breath has an ill Scent: The Eyes are leſſened and in Pain: The Noſe and Ears grow cold: The whole Countenance is diſcoloured: The Woman herſelf is often ſeized with a Horror and Faintneſs: Sometimes ſhe ſeems to be attacked with an Epilepſy, and generally labours under an obſtinate Watching. Farther, theſe

are

are the Signs of a future Abortion: The Breaſts grow lank of themſelves, or elſe diſcharge watery Milk: The Sides and upper Part of the Belly are contracted: The Loins and Hips are ſeized with an unuſual Weight, and difficultly moved: The Fœtus, if it has Life, ſcarce moves at all: Afterwards a thin ſanious Water comes away, which is followed by Blood itſelf; after this enſue Grumi of Blood, and then the Fœtus is immediately excluded. When the Birth begins at the due Time, and the Fœtus is found, it is uſually more difficult in a fat Woman than in one who is thinner; in bringing forth a Female, than a Male. There is alſo more Difficulty for the moſt Part in an Abortion than in a mature Birth. We may preſage a hard Labour if the Waters come away wholly before the Fœtus, or a long and copious Flooding has preceded: If the Woman be often ſeized with a Horror, and her Pains come on but languidly and at long Intervals. For *Hippocrates* well obſerves, that a Labour without due Pains, is dangerous. If a Woman be not duly cleanſed after Delivery, the Belly and Legs ſometimes ſwell: A Pain and Rigor ſeize the Loins and lower Part of the Belly, and ſometimes the Woman falls into a Swoon. But if ſhe be ſeized with a Fever at her Lying in, with a great and continued Pain in the Head, we may then conclude her to be in great Danger.

When the Uterus is wounded, the Groin, Hips, and Thighs are pained: There is a Diſcharge of Blood partly from the Wound, and partly from the Pudenda, and followed by a bilious Vomiting. In the laſt Place, when Death is near, thoſe Symptoms enſue, which generally attend Wounds of the Heart.

Obſervations uſeful in Diſorders of the Joints.

The Gout, by the *Greeks* called Ἀρθῖτις (under which Name are comprehended Ποδάγρα, Χειράγρα and Ἰσχιὰς) uſually continues a long Time, and returns by Intervals, tormenting the Patient with the moſt exquiſite Pain: Neither is there hardly any Diſeaſe, which is more hereditary than this. It ſometimes ſeizes all the Joints of a ſudden: But it oftener comes on gradually, and a ſlight Gout ariſes either in the Hands or the Feet, eſpecially in Perſons of a hot Conſtitution, ſo that one who had never felt this Pain, would hardly imagine it to be arthritick. From theſe Parts, the Pain in ſome Time creeps to the other Joints: Beſides, when the Diſeaſe is grown more inveterate, the Vertebræ of the Spine are affected, the Cheeks, and ſometimes the Throat itſelf, are pained, and there is hardly any Connexion of

of the Bones exempt from this Torment. Any Part expoſed to this Diſorder, being fatigued on any ſlight Occaſion, is equally offended by Cold and Heat. And this Diſeaſe, when it has continued to old Age, or at leaſt begins in it, as alſo when before this Time of Life it has contracted a Callus, is never wholly cured. By this Callus I mean that knotty Arthritis, in which the Joints are diſtended and diſtorted, and loſing their Motion become crooked. In a young Man it is always much eaſier removed, if he be a Lover of Exerciſe, lives regularly, and is not inclined to be coſtive: Eſpecially if the morbid Matter be not made up of different Humours. All which give us ſome Hopes, if as yet there be no Callus formed. Nothing ſo much relieves thoſe who are affected with this Diſeaſe, as a Dyſentery, or Looſeneſs of any Kind. There is hardly any Thing more injurious than an immoderate Uſe of Wine and Venery, A Fever alſo may both occaſion and remove Diſorders of the Joints. It is a good Sign if the Varices ariſe, or if the Urine be thick, and in large Quantity. Theſe Obſervations are common to every Species of the Arthritis. I ſhall now proceed to thoſe that are eſteemed peculiar to each of them. The Chiragra is ſeated in the Hand, and affects either the Wriſt or the Back of the Hand, or the Joints or Ligaments of the Fingers; about which there are often Swelling, Redneſs, Heat, and pulſating Pain.

The Podagra infests the Feet, and torments either the Ancles or Soles, and more particularly the Joint of the great Toe: And the same Symptoms ensue in this Case, which we have already mentioned in the former. The Podagra rarely attacks Eunuchs, or Youths before the Use of Venery, or Women who want their Menses. Every Part that is subject to this Distemper, both in this and the former Case, is weakened and emaciated; the Pains of the Podagra, when the Inflammation ceases, go off within forty Days: And generally happen more in Autumn than in the Spring. But the Ischias is seated in the upper Part of the Hip, but not in the Joint, from whence it extends itself down the Thigh and Leg to the Extremity of the Foot. Sometimes it fixes about the Groin, and by attacking the Bladder creates a Difficulty in making Water: But the Leg is sometimes hot and sometimes cold. There seldom rises any apparent Tumour, or Heat, or Redness. This Disorder excites a more vehement Pain than the others; and generally comes on after some chronick Distemper, when the Matter is turned upon the Hip. Farther, it continues very long, and does not terminate within the Year, if the Leg and Hip be very torpid, and the Loins very cold, and the Belly does not answer but when forced to it, and voids nothing but a stercoraceous Mucus; lastly, if the Penis cannot be erected, and the Man be above forty Years of Age.

This

This Illneſs may abate in Spring and Summer, but we can have very little Hopes of it in Winter and Autumn. The Pains are as violent in young Perſons as in old, but do not continue for the ſame Space of Time: For the former are freed from it within forty Days, and are leſs ſubject to a Torpor and Coldneſs of the Legs and Loins. Alſo if the Pain leave the Loins and Hip, and turn lower downwards, we may entertain ſome favourable Hopes: But if on the contrary, it ſhould not forſake the Hips and Loins, and yet extend to the upper Parts, the Caſe is very difficult. But if when this Diſorder begins to grow inveterate, the Head of the Femur ſhould be luxated, the Thigh immediately waſtes away, and the Patient, unleſs a Cauſtick be applied, grows lame. It has often been obſerved, that this Sciatica is followed by a Dropſy. The Podagra and Sciatica tho' cured, eaſily return, which the other arthritick Diſorders do not. When an arthritick Pain falls upon the Shoulder, there is no evident Tumour, Heat or Redneſs: When the Elbow or Knee are afflicted, there is much Pain and Swelling, but very little Redneſs and Heat.

Uſeful Obſervations in Cutaneous Diſeaſes.

OUR Skin is expoſed to a Variety of tedious Diſorders, which tho' in themſelves not dangerous, are yet generally foul, and ariſe from an ill Habit of Body. Wherefore we ſhall firſt deſcribe the Scabies, by the *Greeks* called Ξυσμὸς, namely, hard Roughneſs of the Skin, with a ſlight Ulceration, and that prurient and ſometimes corroſive. In this Puſtules ariſe, one while dry, another while moiſt; when theſe break, an Ulcer enſues. This, when the Sanies is diſcharged, turns into a hard dry Scab. And this Diſorder is ſo much the more violent, the rougher it renders the Skin, the more it itches, the more Parts it ſeizes, and the more it diſturbs the Sleep. This being more deeply rooted, is more difficultly removed. Wherefore it was called by the *Greeks* Ἀγρία, and by the *Latins* Fera. The Scabies wholly ceaſes in ſome Perſons, and returns in others at certain Seaſons of the Year. It is very difficultly cured in old Perſons, and is uſually worſt when it falls upon the Head

MORE ſevere than this is the Impetigo, which is a hard and dry Roughneſs of the Skin, attended with much troubleſome Itching. This generally attacks either the Hands

or

or Feet, and is of four Kinds. Of theſe the mildeſt, is that which reſembles the Scabies; in which the Skin is rough, red, and hardiſh, attended with an eroſive Itching; this is commonly called the Itch. That is worſe than this, which is rougher, redder, and with larger Puſtules; this is that Species which the *Greeks* call Λειχὴν, and the *Latins* Lichen. In this the Skin is of a quite different Figure, and the Eroſion larger, with many Scales, and the Diſorder ſpreads wider and quicker, and comes on and goes off at certain Periods. But the third is far more violent than this; which either riſes about the Temples, or certainly ceaſes there, and it ſeems almoſt impoſſible entirely to remove it. The Skin is very thick, harder, and more tumified, and chaps and gapes every where with Dryneſs; it throws off black Scales like Bran; this is called by the *Greeks* Ψώρα. The fourth and worſt Kind of all, is that which the *Greeks* call Λέπρα, this is incurable: The Eroſion ſpreads wider, the Diſorder and the ſubjacent Humour are whitiſh, and reſemble a freſh Cicatrice: Add to this, that the Skin is chapt and very hard, from whence Blood is diſcharged with the Scales, which are either whitiſh or pale. If the Lichen be neglected it turns into a Pſora, and this into the Lepra. They generally waſte away gradually, who have been once defiled either with the Pſora or Lepra. The Impetigo differs from the Scabies in this, that it has

dry Pustules, void of all Humour and Sanies, whereas in the Scabies it is just the Reverse.

I SHALL now treat of the Vitiligo, in which the Skin is defiled with different Kind of Spots, and those not continued, but variously disjoined and scattered about. In this Disorder the Sensation of the Part affected is either blunted or wholly lost. And this is of two Kinds, namely the Ἀλφὸς, and Λεύκη. In the former, only the Surface of the Skin is affected, and obscured with certain Spots as with a Shade, by which Means the Alphus becomes either white or black, wherefore this last is called Melas. Farther, the Leuce seizes not only the Surface of the Skin but enters wholly into it, and is whiter than the Alphus. The Hairs fall off the Skin, and new ones arise in their stead, thin, white, and perfectly resembling Down. The Alphus scarce ever penetrates into the Skin, except when it is grown inveterate. The Leuce not only affects the Skin, but the very Flesh itself even to the Bones; that is not very difficultly cured, this is hardly ever removed by Remedies, or if it is, it always leaves the Marks of its foul Colour upon the Place. In the Leuce the Hairs turn white, in the Alphus they are of the natural Colour. From this, if any one prick the Part with a Needle, Blood comes away, from that only a watery Sanies: Both of them spread abroad, but in some sooner, in others later. We may learn from an Experiment, whether

whether either of theſe are curable or not. For if, when the Skin is either cut, or pierced with a Needle, the Blood flows (which generally happens in both Kinds of Alphus) we may hope to make a Cure, but if there comes away nothing but a thin whitiſh Sanies, we cannot. All Medicine is equally uſeleſs, if the Diſorder be grown inveterate: If it hath ſpread wide and over many Parts of the Body: If it be ſunk deep within the Fleſh: If the Part hath wholly loſt its Colour, or be of any other rather than a red one: Laſtly, if the Skin being rubbed with a coarſe Cloth does not change its Colour. With every Species of Vitiligo is joined an ill Habit of Body, and whoever labours under this, is more liable to that.

In this Place we muſt lay down ſome Obſervations concerning Exanthemata or Efflorescencies. While theſe continue within the Body, and are not yet broke out, the following Symptoms occur. The whole Body is heavy and ſeems to be pricked with Needles: There is a violent Pain in the Head, as alſo ſome in the Cheſt, Fauces, and Back: The Mouth being dry and the Spittle thick, it is hardly thrown forth: The Eyes ſwell: The Noſe itches: The Voice is hoarſe, the Reſpiration difficult and thick: The whole Countenance becomes florid with Heat and Redneſs: With all this, there is a great Propenſity to ſleep, and a Fever enſues, not much

much unlike a Synochus. When this Diſorder diſcovers itſelf outwardly on the Skin, all the Symptoms which I juſt now mentioned encreaſe, eſpecially the Pain of the Head, and the Difficulty of Breathing: The Pulſe remains equally quick, ſwift and vehement, as before. And generally when the Eruption begins the Face is tinged with certain Spots, which by the ſubjacent Humour are either raiſed high or ſpread out broadways: The former ulcerate and create an Itching, which the broad do not. This Diſorder goes off either in profuſe Sweats, or by Stools wherein corrupt Excrements are diſcharged. There are very few, who are not once affected in this Manner before they arrive to the Years of Maturity. Infants and Children are not liable to theſe Eruptions, elderly Perſons very ſeldom labour under this Illneſs, and then not without great Danger. And tho' theſe Eruptions may happen at any Seaſon of the Year, yet they do ſo more frequently in Spring and at the latter End of Autumn: And that rather to Bodies of a moiſt than dry Temperament. They are ſafeſt which break out ſooneſt (for in ſome this happens immediately, and in others on the third, fourth, and ſometimes on the fifth Day after they were firſt taken ill) and which (if they riſe high) ſooneſt maturate, and are red, large, and do not in the leaſt run together: As alſo thoſe which do not raiſe a vehement Fever, and which put an End to it when they

they are come out. But they are bad, which come forth ſlowly, and the rather if they be of a violet Colour, for theſe are attended with a frequent Syncope. They are alſo not good, which are either of a livid, green, or black Colour, and which one while emerge, another while ſubſide. They are equally bad which are attended with a violent Fever, difficult Reſpiration, Inquietude of Body, great Drought and Decay of Strength. For when theſe Symptoms thus concur, the Patient for the moſt Part dies, and the more ſo if the Eruptions are of the broad Sort. A Syncope is a certain Token of Death, as alſo a green Urine, with an Imbecillity of the Body. It is alſo dangerous, if bloody Urine be ſucceeded by ſuch as is black. Nothing ought ſo carefully to be obſerved, as the Voice and Reſpiration. For if theſe are in good Order, there is great Hope: If not, the Caſe is doubtful. Whoever ſink under this Diſtemper, generally die, as if ſuffocated with a Quinſy, or elſe are carried off by a Looſeneſs or Dyſentery. The *Exanthemata* are often epidemick thro' the Fault of the Air, without any Danger to the Life, or without any Marks of a Plague: Oftentimes they accompany the Plague, and imperfect Criſes of inflammatory Fevers; ſeldom any one dies of the ſublime Sort, but many of the broad one.

Uſeful

Useful Observations in those Disorders, which do not attack any certain Part, but divers.

AN Inflammation, which the *Greeks* call Φλεγμονὴ, is known by these Signs. The Part affected swells, resists the Pressure of the Finger, is distended, hot, red, and seized with a pulsating Pain: This Disease is either solved by a latent Resolution of the Matter, which is best: Or by Maturation, and a Discharge of *Pus*; which is likewise good: Sometimes without this it begins to be malignant, which is indeed very bad. Also by an ill Cure, it is turned into a hard insensible Tumour, which is not good.

A VIOLENT Inflammation is sometimes followed by a Gangrene or Sphacelus. In the former the Part begins to die, and the native Heat is extinguished: At this Time also the florid Colour of the Inflammation decays, as also the Pain and Pulsation. But in a Sphacelus (which is by the *Latins* called Syderatio) the Part is wholly deprived of Sense, Motion, and even Life itself, and becomes entirely black, soft, putrid, stinking and cadaverous. This Case (unless timely prevented by the Amputation of the corrupted Member) brings on speedy Death.

IT is likewise proper to make some Remarks upon that Disorder, which is by the *Greeks* called Ἄνθραξ, and by us a Carbuncle. The

The Part firſt itches, and then grows florid, with a Redneſs ſhining like Pitch or Bitumen, and is extremely pained: Then one or more Puſtules immediately ariſe, very flagrant, not very eminent, which are black, and ſometimes either livid or pale. When this is broke, an Ulcer is formed, with a Cruſt, ſuch as is made by an actual Cautery; this is ſurrounded by an Inflammation, and burnt up with the Violence of the Heat. Wherefore the Skin on that Part, is ſo bound and fixed to the inferior Fleſh, that it cannot be ſeparated and divided from it: The adjacent Parts, are all by a certain Conſent incommoded by the Heat and the Pain: Beſides this, the Perſon is ſometimes ſeized with a Horror, and Fever, attended with a great Nauſea, Drowſineſs, and Tremor of the Heart: This Tumour never ſuppurates, but after the corrupt Fleſh has been cauterized, turns into a hollow aud foul Ulcer. This Diſorder is acute and very fatal, eſpecially if it raiſe a Fever, and is ſeated near the principal Viſcera, in the Axillæ, for Inſtance, and the Groin. For then there is ſome Danger that it will eaſily turn inwards: And ſhould this happen, the Patient's Life may certainly be deſpaired off, eſpecially if it be attended with ſeveral other bad Symptoms. Oftentimes when this Diſorder ariſes near the Stomach or Fauces, it ſuddenly ſtops the Patient's Breath. Leſs deadly is a red Carbuncle, and after that a pale one. That which is black

black, is wholly peſtilent and deſtructive. The Plague is generally either preceded or attended with theſe Carbuncles, which are then abſolutely fatal. But thoſe which ariſe at any other Time, tho' they may alſo appear terrible from their exquiſite Pains, are however eaſily cured.

THE Eryſipelas comes next to be conſidered, as well that which is ſimple, as alſo that which is ulcerated. It is common to them both when they begin, generally to raiſe both a Horror and Fever, and always to be more or leſs pained and ſwelled with the Inflammation, to ſpread wide over the Surface of the Body, to be of a yellowiſh red Colour, and to be deprived of that Colour when preſſed with the Finger, and to recover it again when looſed; add to this, that there is no Pulſation, and much leſs a Tenſion: As alſo to creep from one Part to another, and bite and burn the Part which is attacked. A ſimple Eryſipelas exhibits a Burning and Redneſs without any Ulcer. *Hippocrates* in his Aphoriſms calls it Ἐρυσιφλόγισμα, and our Countrymen a Roſe from the Similitude of the Colour. That Author ſays this is fatal in a Quinſy, if after it has once appeared on the Breaſt, it ſhould ſuddenly turn in again. But when the Eryſipelas is ulcerated, which is properly called *Ignis ſacer*, the Surface of the Skin is one while affected, and certain furfuraceous Scabs break out upon it; another while it is wholly ulcerated, and when the Puſtules

Puſtules break, it voids a purulent Sanies. The Eryſipelas very often falls upon the Face, and ſometimes creeps entirely over it, and is both much tumified and expanded, and unleſs timely remedied, may ſuffocate the Patient. That is likewiſe bad, which is occaſioned either by a Bone being broke or denudated. But it is always good if the Eryſipelas be turned from the Inſide of the Body upon the outer; and fatal if it turns from hence inward. If a Putridneſs or Suppuration enſue upon this Diſeaſe, they are hurtful, which hardly ever happens to a ſimple Eryſipelas, this being for the moſt Part carried off by a a cuticular Perſpiration.

I SHALL now, from the Affinity of the Cauſe, proceed to the Papulæ, by which Term I find the Herpes to be ſignified. Of theſe there are two Kinds, the one ſimple and mild, the other corroſive and ferine, which is therefore by the *Greeks* termed Ἄγριον. The ſimple Kind exaſperates the Surface of the Skin, with very ſmall Puſtules, lightly eats it, tinges it of a red Colour, makes it itch; it proceeds for the moſt Part circularly, and as the Middle heals, the Extremities ſpread farther abroad. As the Puſtules in this Diſorder, reſemble Millet-Seeds, it is in *Greek* called ὁ τῆς Κεγχρίας Ἕρπης. But when the Herpes is of that Kind which the *Greeks* call Ἐσθιόμενον, that is, corroding, not only the Surface, but the whole Skin is in like Manner exulcerated, but in a greater Degree:

Degree: It is likewiſe redder, and more corroded. When the Puſtules break, the Ulcers are dry, without either Sanies or *Pus*. So that upon this Account alſo this Diſorder differs from the *Ignis ſacer*, to which in all other Reſpects it is very like. For in this the Puſtules are large, ulcerated and moiſt, from which a ſanious *Pus* is diſcharged. Each Kind of Herpes is the leaſt dangerous of all creeping and corroding Ulcers; but it is long and difficult in the Cure, eſpecially that which is leaſt round; for this often turns to an Impetigo.

THE Oedema, is a lax and ſoft Tumour; it is white, without Pain or Heat, and pits if preſſed with the Finger. This Diſorder happens moſt frequently to the Feet, and ſometimes over the whole Body of thoſe who have been waſted either by a Dropſy, Tabes, or Cachexy. It often ceaſes upon the Uſe of diſcutient Remedies, and ſometimes degenerates into Nodes and Tubercles. Gluttons and old Perſons readily fall into this Diſorder in the Winter.

BUT a Scirrhus is a hard and renitent Tumour and (if genuine) void of all Senſe, of a Colour between red and black. In the Beginning it is ſmall, and riſes gradually to a large Bulk. The Liver is often ſeized with this Diſorder, and the Spleen more oft, not without a certain Preſage of ſome very violent and fatal Diſeaſes. Sometimes it falls alſo upon other Parts, on which either

either an Inflammation or an Eryſipelas have been ill-cured. A recent Scirrhus, if it be preſſed, exhibits ſome Senſe of Pain, and affords Room for Medicine: When it is conſummated it is entirely void of Senſe, and cannot be removed by Remedies. A Scirrhus is in ſome Perſons reſolved, in others it remains perpetually hard, in others alſo it turns to a Cancer.

AKIN to this Diſorder are the Strumæ, by the *Greeks* called Χοιραδες, namely, hard Swellings of the Glands, eſpecially on the Neck, whereon they are diſpoſed in a long Series, whence they ſometimes reach to the Arm-pits, as alſo to the Cheſt, and Breaſts of Women: In ſome People alſo the Groin is infected with them. This Diſorder is ſometimes milder, and then it exhibits a Swelling equal, round, circumſcribed, not very hard, free from Inflammation and Pain, in all Things reſembling a Scirrhus. Farther, when it is grown violent and inveterate, it turns into a malignant, ſerpiginous and eroding Ulcer, whereby the adjacent Parts are eaten away. Sometimes it becomes ſo extremely malignant, as to differ very little from a Cancer: At this Time a Fever ariſes, as alſo an unequal Swelling, attended with pulſating Pains, and the Veins themſelves become eminent. If it be rubbed much with the Hands it grows worſe, and continues, ſince it does not maturate, as long as the Patient lives; and if theſe Strumæ are

cured either by Inſtruments or Medicines, they generally riſe again very near the Cicatrices. All Strumæ are very difficultly removed, and are moſtly incident to Children (to whom however they are leſs noxious) eſpecially ſuch as have ſhort Necks, compreſſed Temples and large Cheeks. In Adults, and thoſe who advance towards old Age, all Strumæ are rare, but very difficult; thoſe are judged to be the worſt, which are void of Pain.

THE Cancer, by the *Greeks* called Καρκῖνος, is extreme dangerous, and very troubleſome on Account of its long Duration. It is a round, hard, unequal Tumour, of a Colour more diſagreeable than an Inflammation, when growing black, but not ſo hot. It occaſions great Pain in the adjacent Parts, and tho' it appears ſoft to the Sight, feels extremely hard. The Veins about it are diſtended, ſometimes full, and pale or livid, and as it were incurvated, ſo that they in ſome Meaſure reſemble the Claws of a Crab, when ſpread out. When this Diſorder begins, it is ſmall in the Form of a Tare, hard, round, of a duſky Colour, and ſometimes with Pain and Heat, at other Times without, and encreaſing for ſome Time it equals in Size a Bean, but after that a Walnut, and things much larger. This Tumour is one while attended with an Ulcer, another while without it. When there happens to be an Ulcer, beſides what I have juſt now deſcribed, the Part

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is continually eat away, and looks like corrupt Flesh, and discharges a pestilent, thin, black, or browniſh Sanies, abominable for its Colour and Quantity: The Ulcer itself is unequal, with hard, inverted, and tumid Lips, and very foul from the Concretion of the Humours: There is a continued slow Fever, and a frequent Fainting; especially if the Disorder be seated near the Heart: Sometimes much Blood is discharged from a Vein that is eat thro' by the Ulcer, and the Disorder keeps continually spreading till it destroys the Patient. It must be observed, that as this Disease may happen to all the Parts of the Body, so does it more frequently happen to the Breasts of Women, as also to the Mouth, Eyes, Pudendum, Penis, or Anus, especially if the Menses have been long suppressed, or if the Hæmorhoids which have continued for a long Time be cured, or the Patient hath been long afflicted with a Quartan. If the Cancer be recent, and not yet deeply rooted in any Member, it may possibly be cured. But when it is grown inveterate, or firmly radicated, it is overcome by no Medicine, especially if there be likewise any Ulcer. But it is rather irritated than relieved by any Method of Cure; for if it be burnt with an Iron, it is then much more enraged and exasperated, and occasions certain Death. Or if it be cut off with an Incision-Knife, yet after it is cicatrized

over it will return again, and encreaſe till it deprive the Patient of his Life.

We muſt now proceed in our Obſervations, to thoſe concerning Wounds and Ulcers. That Wound is ſafeſt that is ſtrait, and made in a fleſhy Part, and that with an Inciſion and not with a Bruiſe: For it is better for any one to be wounded with a ſharp Inſtrument than a blunt one. But that Wound is bad, wherein there is an entire Loſs of Subſtance, or where the Fleſh is cut away in one Part and ſtill hangs by another. The worſt of all is a round one. That is likewiſe fatal, which is made in the Heart, Brain, Ventricle, the flat Side of the Liver, ſpinal Marrow, Lungs, ſmall Inteſtines, or of any large Vein or Artery about the Fauces. The Danger is equally ſure, tho' not ſo ſudden, from a Wound in the Membranes of the Brain, or the thick Part of the Liver, Kidnies, Spleen, Womb, Bladder, or Diaphragm. It is alſo doubtful and dangerous, if any of the large Veſſels on the Arms and Thighs be wounded, as alſo thoſe which reach to the Anus or the Teſtes: For then all the Danger lies in the too great Profuſion of Blood. Beſides this, the Joints, and Parts between the Fingers, as alſo the Arm-pits, Groin, Heads of the Muſcles, Nerves, Arteries, Membranes, Bones, and Cartilages, are not ſafely wounded. Every large Wound is likewiſe ſubject to Danger. Farther, Children and young Perſons eaſier recover from all

Wounds

Wounds than thoſe who are elderly, a firm Man than a weak one, one that is ſquare than one that is too lean, or too corpulent: He that is temperate than one who is given to Wine or Women. Any Wound heals ſooneſt in Spring, ſlower in Summer or Winter, and ſloweſt of all in Autumn. Wounds ſucceeded by a Diſtenſion of the Nerves, are fatal. *Hippocrates* alſo judged it bad for wounded Perſons to be coſtive.

SOMETHING alſo muſt be ſaid in general of Ulcers, for it is certain that they are not always ſimple, but attended ſometimes with Swellings and Bruiſes: One while they are loaded with too great an Excreſcency of Fleſh, and another while filled with Varices: Sometimes they are ſurrounded with hard and diſcoloured Lips. Sometimes alſo when a Cicatrice has been formed, after ſome Time they inflame and break out afreſh: This happens generally in thoſe Caſes where there is a foul Bone underneath, which may hence be diſcovered, in that the Bone is firſt fat, then black or carious. An Ulcer may likewiſe be malignant (by the *Greeks* called Καχοήθες) and very difficultly admits of any Cicatrice, which they call Δυσεπούλωτον. This is found generally to happen in a bad Habit of Body, or in Diſorders of the Liver or Spleen; and then the Lips are either uſually callous, or Varices ariſe near the Ulcer, and the Patient's Countenance turns of a foul Colour, Sometimes the Ulcer becomes cor-

roſive; and then it not only wears and eats away the corrupt Fleſh, but that alſo which is ſound and lies near it, this is called by the *Greeks* Νομὼδες. But this ariſes for the moſt part after thoſe Wounds, which thro' the Imprudence of the Phyſician were made by biting Medicines: Or elſe after the Ignis ſacer, and after ſuch Puſtules as are excited by acrid Bile with much Itching. Of this very Kind is the Phagedæna, which ſpreading wide, eats away the Skin and only the upper Part of the Fleſh: The Ulcer is alſo ſometimes cavernous, whoſe Orifice is narrow, and Bottom broad, and runs into various Cavities; ſometimes it is inwardly hard and callous, ſometimes not. When it is ſo, it receives the Name of a Fiſtula, upon which much Obſervation may be made: For ſome are eaſily cured, others difficultly, and ſome again abſolutely incurable. The Cure may be expeditious, when the Diſorder is ſimple and recent within the Fleſh, and the more ſo if the Patient be young and ſtrong. That Fiſtula is judged to be difficult, which has injured either a Bone, Cartilage, or Nerve; as alſo that which has wounded a Joint, or penetrated into the Bladder, Lungs, Vagina, the larger Veins and Arteries, or the Throat, Stomach, Cheſt, and Inteſtines. For in theſe Caſes, the Danger is ſometimes doubtful, at other Times Death is certain, and this the more if the Patient be old, the Body infirm and of an ill

ill Habit. And if from the ſame Ulcer more Matter be diſcharged than anſwers to its Size, we may conclude that there are ſeveral Sinuſes inwardly: And if the Fleſh only be eroded, the Matter hence diſcharged is white, ſmooth, and in large Quantity: If the Part be nervous, the *Pus* is indeed of the ſame Colour, but thinner and leſs. That which proceeds from the Nerve itſelf is fat and like Oil, and attended alſo with Pain: If a Vein be affected, Blood is ſometimes mixed with the *Pus*; if a Bone, a thin Liquor is thence diſcharged. And generally, as almoſt every Ulcer, ſo that likewiſe which is deep, narrow, and callous, if it continue above a Year, affects the Bone. And this is known, if the Probe meet with any Reſiſtance, ſo that it does not ſlide, but ſeems fixed on each Part of the Bone alike: At this Time the Caries is but ſlight: But if the Bottom be rough and uneven, the Bone is very much eroded. All Fiſtulas are difficultly cured, eſpecially thoſe which are inveterate, and thoſe that are deeply rooted and have many Sinuſes. If any Ulcer that has been once cured and cicatrized over, break out again in a ſhort Time after, it inclines to a Fiſtula. Farther, Ulcers become ſometimes ſo malignant and purulent, as to putrify the Part: Theſe indeed have ſome viſcid Subſtance, or ſoft Fleſh within them, or elſe are covered over with a fœtid Cruſt, from whence a foul Vapour ariſes, ſuch as exhales from rotten Bodies or corrupted Fleſh. Such

Ulcers may alſo deprive the Patient of his Life, and if they grow very virulent, turn into a Sphacelus. Beſides, it muſt be noted, that an Ulcer is bad which continues long, and ſucceeds any Diſeaſe, as alſo if the Hairs fall off the adjacent Parts; but it is ſalutary, if the Hairs which have once fallen off, grow up again. A Profuſion of Blood is alſo judged hazardous from a ſtrong Pulſe in Ulcers. If any Swellings above the Ulcers ſuddenly ſubſide, and this ſhould happen in the fore Part of the Body, either an acute Pain in the Side, or Phrenſy are very much to be dreaded. But if it happen on the Back, there is Danger of a Diſtenſion of the Nerves, or a Rigor: And at this Time a Looſeneſs is very much to be deſired. It is alſo a bad Sign, if Ulcers are attended with great Watching, difficult Reſpiration, Drought, Loſs of Appetite, and Fever, and alſo if the *Pus* be black, feculent and fœtid. But the worſt of all is a *Deliquium Animi*.

In the next Place we ſhall ſay ſomething concerning the Blood, Sanies and *Pus* common to Wounds and Ulcers. The Blood is well known of itſelf. The Sanies is not only thinner than this, but is the thinneſt alſo of all the Humours that are diſcharged, not in the leaſt glutinous, it is whitiſh or reddiſh, and is called by the *Greeks* Ἰχῶρ. That which is thicker and more glutinous is by the Moderns called Virus, from whence an Ulcer is ſaid to be virulent, and by the *Greeks* (ſince

(ſince it is pretty much like white Honey) Μελιχηρία. The *Pus* is thicker and whiter than all theſe, tho' by no Means ſo glutinous as the Sordes, which being as it were concreted, adheres to the Ulcer, whence it is ſaid to be ſordid or foul. The beſt Blood is that which is hot, red, moderately thick, and not tenacious. That is bad, which is too thin or thick, livid, black, or mixed with Phlegm, or that is of a various Texture. The Sanies is bad that is in too great Quantity, too thin, livid, pale, black, glutinous, fœtid, hot, and corroſive: That is better which is in a ſmaller Quantity, moderately thick, reddiſh or whitiſh. The Virus is condemned when in large Quantity and very thick: The contrary to this is more tolerable. Of all theſe the *Pus* is the beſt, and is eſteemed the better, the leſs it is, and the whiter and thicker. That is alſo approved of which is ſmooth, equal, of one Colour, and ſcentleſs; and which anſwers in its Quantity both to the Time and Magnitude of the Wound: For a larger Quantity is diſcharged from a greater Wound, and when the Inflammation is not yet ſolved. But we muſt note that that *Pus* is bad, which is thin and of a wheyiſh Colour; eſpecially if it be ſo from the Beginning; as alſo if it be at any Time pale, livid, feculent or fœtid. We muſt likewiſe obſerve that Blood is diſcharged from a Wound that is either recent or juſt upon healing; but *Pus* from

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an Ulcer that tends towards a Cure; Sanies, when the Ulcer is beginning and crude; and Virus from one that is malignant.

In the last Place, we shall describe the Dilatation of the Veins or Arteries; this is called by the *Greeks* Ἀνεύρισμα, and that Κιρσὸς, and by the *Latins Varix*. In both Cases the Vessels are very much filled with Blood, which in the Veins is thick, in the Arteries spirituous: In these there is a great, turgid, and often a troublesome Pulsation; in those nothing of this: In both the Part is swelled without any Pain, and yields when pressed, and returns again. The Legs are more liable to a Varix than the other Parts, especially in Women, who are pregnant: And in those in whom a Quartan is solved, or the Hæmorhoids that had continued a long Time have been cured. The Aneurism is sometimes in the external Parts about the Neck and Breast, and also in the Hands and Feet; sometimes it is also seated inwardly, especially under the Thorax, near the Spleen and Mesentery.

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MEDICINAL OBSERVATIONS.

BOOK III.

In which are conſidered the Events, and proper Judgments which may be made, as well of univerſal Diſtempers as of thoſe that are particular.

HAVING in the former Books conſidered the Diſeaſes which are incident either to the whole Body or any ſingle Part of it: I ſhall proceed now to ſay ſomething of both in general. For I do not think it a Matter of ſmall Importance to obſerve the Force, Acuteneſs, Duration or Event of every Diſeaſe: As alſo into what other Diſeaſe it may turn; at what Age they more frequently happen; what Seaſons of the Year,

Year, in what Climates, and what Parts of the Body. Neither does it seem useless to regard the Patient's Mind, Manners, Speech, Dreams, Countenance, Præcordia, Breath, Pulse, Appetite, Diet, Gesture, Manner of lying; lastly the Habit of the Body, and every thing that comes out of it, in all Distempers: And from thence to draw useful Observations. Each of which I shall do in this last Book, according to the best of my Capacity.

THE following Diseases are generally acute; and fatal to those Persons who labour under them: As pestilential Fevers, Apoplexy, Inflammation of the Brain, by the *Greeks* called Φρενῖτις, and also the Inflammation of the Bladder; and the Rigor of the Nerves, by them termed Τέτανος. Other Diseases may also be acute, but less so, than those already mentioned, and likewise less destructive, but so doubtful, as that they sometimes kill, and are sometimes cured: As burning Fevers, Lethargy, Diseases of the Uvula, Quinsy, Inflammation of the Side, or Lungs, and also of the Ventricle, Liver, Spleen, Kidnies and Uterus. And the Cholera Morbus is equally doubtful; but far more acute than these. Short and salutary are the Diary Fever, and true intermittent Tertian: But long, and without any Danger (unless by Accident) are Quartans, Coryza, Palsy, Arthritis, whether it seize the whole Body, or only Part of it: Add hereto, the Scabies, Impetigo, and almost all other Diseases of the Skin. Long and

and dubious are the Epilepſy, Melancholy, all Kinds of Catarrh, except the Coryza; as alſo Abſceſſes in the Breaſt, Colick, Diarrhæa, Dyſentery, and Teneſmus, Lientery, Dropſy, hard Tumours in the Liver, Spleen, and Kidnies, Ulcer and Stone of the Kidnies, and Bladder; and alſo the Hæmorrhoids, and Fluor Albus; laſtly the Elephantia, and Venereal Diſeaſe. But theſe, as they are long, ſo are they generally fatal; confirmed Hecticks, Ulcers of the Lungs, and alſo the Corruption of the Subſtance both in this Part and in the Liver, Tabes, Maraſmus, Cancers both ulcerated and occult, Dropſies that enſue upon acute Fevers or hard Livers and Spleens, and a Lientery which comes upon a Dyſentery. Chronical Diſeaſes, when deeply rooted, are as difficult as acute: And acute Diſeaſes the longer ſtanding they are of; and chronical ones the more recent, are ſo much the more eaſily cured.

Some Diſeaſes ſometimes paſs into others, and that one while, when the former ceaſes, another while, when it continues; wherefore a Diary Fever may paſs into a Hectick, and a putrid one: An Erratick Fever, which takes its riſe from a Variety of Humours, often turns into a Quartan, and this ſometimes into a Quotidian; as alſo any other Fever into an Arthritis, Palſy or Abſceſs. But an Ardent Fever, Pleuriſy, and Quinſy may turn into an Inflammation of the Lungs, and this again into a Phrenſy. An Epilepſy

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is likewise succeeded by a Melancholy, and this sometimes by that. Oftentimes an Inflammation of the Side and Lungs, pass into a Suppuration of the Thorax, and this again, into a Tabes, and Diarrhæa. Also after long Defluxions, a Tabes, and after a Spitting of Blood, ensues a purulent Spitting, and after these a Tabes. After an Apoplexy a Palsy, as also after a Fit of the Colick; after this likewise ensue the Arthritis, Epilepsy, Iliack Passion or Dropsy. A Dysentery succeeds Disorders of the Spleen and sincere Stools, which is followed by a Lientery, and this by a Dropsy; the Dropsy likewise ensues upon a hard Liver and Spleen; as also upon a Jaundice, and Cachexy, if this arise from crude Phlegm, but if from Melancholy, it turns then rather into an Elephantiasis. After a Dysentery ensues a Tenesmus, and after a Tenesmus, if Bile be predominant, a Dysentery again; but if Phlegm, either a Colick or Iliack Passion. After a long Sciatica, a Lameness, and also a Dropsy. Also after the Uterine Flux, and profuse Hæmorrhoids, or any other immoderate Discharge of Blood, a Dropsy; after the blind Hæmorrhoids an Inflammation of the Anus; after any violent Inflammation, a Gangrene and Sphacelus: After an Impetigo, the Lepra *Græcorum*. Farther, that Disease which succeeds another, generally proves fatal; for Nature being fatigued by the first, is scarce able to sustain the second: However this Transition is sometimes safe. For it is salutary,

ſalutary, if a Peripneumony turn into an Abſceſs behind the Ears, which ſuppurates, or elſe on the lower Parts, which runs into a Fiſtula. A continued Fever alſo, which has exceeded the twentieth Day, is ſafely ſucceeded by an Abſceſs on the Joints. A Jaundice is likewiſe ſafe after an acute Fever, eſpecially if the Hypochondria be ſoft, and the ſeventh Day elapſed, Farther, a Fever advantageouſly follows a Palſy, as alſo a Diſtenſion of the Nerves, unleſs it come upon a Dryneſs and Inanition. The Apoplexy and Colick are happily ſucceeded by the Palſy: An Ophthalmy by a Looſeneſs: A Dyſentery by a Teneſmus: A Madneſs by Varices, Hæmorrhoids, or Dyſentery: A Singultus by a Sneezing: A long Diarrhæa by a Vomiting: Deafneſs by bilious Stools: Vomiting of Blood in Women, by a Profluvium of the Menſes: A Tumour of the Spleen by a Dyſentery: A Pain in the Præcordia, if there be no Inflammation, as alſo an Iliack Paſſion ariſing from a Difficulty in making Water, by a Fever. And in theſe Caſes indeed, the ſupervening Diſeaſe generally drives away the former. But if a Diſeaſe paſs from an ignoble Part to a noble one, as alſo from the Surface of the Body to the Viſcera and Vitals, it is dangerous, as much ſo, as when a hot Diſeaſe is ſucceeded by one that is cold: As if a Dropſy ſhould enſue upon an acute Fever, or a hard inſenſible Tumour upon an Inflammation of the Liver.

THOSE Diseases which are not alleviated under good Signs, and remit under bad ones, are generally difficult. Those are always more gentle, which arise from a Disorder in the Spirits, worse if from *Atra bilis*; and if from the other Humours doubtful.

A DISEASE once cured not seldom returns. This may be hence known: Because the Patient continues feeble, tho' the Distemper be removed, or does not relish the Food he takes, as having no Appetite to it, neither does he digest it, but is affected with much Nausea, and nidorous or acid Belchings. It is as certain a Presage of a Relapse, if with those other Symptoms, the Breath smell ill, if there be a vehement Thirst, and much Watching: If the Hypochondria and the Parts adjacent swell: Lastly, if the Face be inflated, especially at the upper Eye-lid: All which the more certainly denounce the Return of the Illness, the more evident they are at those Times, whereon the Distemper is usually most violent. But some Kind of Diseases of themselves foretel Danger of a Relapse. For those Fevers easily return, which were attended with an Inflammation, and which upon going off, left some Heat and Burning in the Viscera. Of the same Rank are the Epilepsy, Dimness of Sight, Hemicrania, obstinate Head-ach, Defluxion, Asthma, Pain of the Kidnies, Colick, Arthritis and the like. The Autumn is most subject to Relapses. Every Relapse is safest, which is occasioned only by an irregular Diet,

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and not by any Diſorder left by the fore-going Diſeaſe. The ſooner it returns, and the more infirm the Strength is, the worſe it is. Every Diſeaſe, which goes off ſuddenly, without any Reaſon or any good Signs, generally returns. Farther, to ſome certain Ages, Seaſons of the Year, Weather, and certain Parts, certain Diſeaſes are alſo uſually more familiar. Which I mention, particularly for the Sake of this Obſervation, that a Patient is in leſs Danger, with whoſe Complexion, Age, Cuſtom of Living, as well as with the Seaſon of the Year, the Diſtemper agrees. Wherefore Infants and tender Children, are troubled with Vomitings, Coughs, Watchings, Frights, Running in the Ears, fervid Ulcers in the Mouth, Inflammations of the Navel, and when they begin to breed Teeth, with Itching of the Gums, Convulſions, Looſeneſs, and Fevers. All which are the more violent, the groſſer the Child is, and the more coſtive the Belly. When they are ſomething grown, but not yet arrived to Puberty, they are ſeized with Diſeaſes of the Tonſils, Luxations of the Spinal Vertebræ, Shortneſs of Breathing; as alſo Worms, Strangury, Stone of the Bladder, Strumæ, Warts, and many other Tubercles. When they are arrived to Puberty, ſome of thoſe Diſtempers already enumerated, are alſo incident to them; as alſo long Fevers, and Bleeding at the Noſe. As they advance they are expoſed to more acute Diſeaſes, as alſo to Epilepſies, and eſpe-

cially to Spitting of Blood, and after this to a Tabes. The adult State, is liable to Lethargies, Pleurisies, Peripneumonies, short Breath, Phrensy, and burning Fevers: Add hereto long Diarrhæa's, cholera Morbus, Dysenteries, Lienteries, and the Hæmorrhoids. But old Men are exercised with a Difficulty of Breathing, frequent Catarrhs with a Cough, Vertigo, Apoplexy, nocturnal Watching, running at the Eyes, Ears and Nose, as also Dulness of Sight and Hearing. Add hereto, nephritick Disorders, as Dysury, and Strangury, Lientery, Dysentery, and the other like Disorders of a loose Belly: Oftentimes also happen arthritick Pains, and an Itching of the whole Body, and a Cachexy. For the most Part old Men are less liable to Diseases, than young ones, but when once seized with a chronick Distemper, they generally sink under it.

Old Persons are most subject to chronical Disorders, young ones to such as are acute, and the middle Age is the safest. In Children, Diseases terminate chiefly, either in forty Days, seven Months, or so many Years; sometimes they hold on, even to the Age of Puberty. And those which continue after this Time; and do not go off, either with the first Use of Venery, or the first Coming down of the Menses, generally prove chronick. Farther, lean Men of all Ages, are more liable to a Tabes, Looseness, Defluxions, and Pains of the Sides and Viscera: Fat Men, to Asthmas and Suffocation, upon which Account sometimes, sudden

ſudden Death enſues; which Caſe hardly ever happens to thoſe who are lean. A thin Body is feeble: A fat one ſluggiſh.

Now, as to what regards the Seaſons of the Year: We muſt note, that tho' all Diſeaſes may happen at all Times; yet thoſe generally happen in the Spring, which are renewed by the Motion of the Humours: Defluxions I mean, and Coughs, Evacuations of Blood, Puſtules, Abſceſſes; and, laſtly, all periodick Diſorders of the Nerves and Joints. To theſe may be added, Ophthalmies, Madneſs, both that which is termed Φρενῖτις, as that which is called Μελαγχόλια: As alſo Epilepſies, Quinſies, Impetigo, Lepra, and the like. The Spring is (as to itſelf,) the moſt wholſome of all the Seaſons of the Year; and leſs liable to fatal Diſtempers: Many of theſe happen in Summer, but this Seaſon brings alſo with it continual burning, and tertian Fevers; as alſo Ophthalmies, Vomiting, Fluxes of the Belly, Pains of the Ears, Ulcers in the Mouth, and whatever may relax the Patient by Sweat; which laſt is generally more incident in Fevers, the more like the Summer proves to the Spring. The Summer is more dangerous than Winter, and ſafer than Autumn. The Autumn is ſcarce free from any of thoſe Diſeaſes: But adds likewiſe, irregular Fevers, and Quartans, as alſo Epilepſies, Phrenſies, Melancholy, Difficulty of Breathing, Tumours of the Spleen, Dropſy, Tabes, Dyſury, Iliack Paſſion, Dyſentery, Lientery, and Sciatica.

tica. The Autumn is very dangerous, neither is any Seaſon of the Year ſo liable to fatal and peſtilential Diſeaſes. It generally carries off thoſe, who have been broke by chronical Diſorders, and loads others with new Diſeaſes, and thoſe very long, and chiefly with Quartans. It is alſo very hurtful to tabid Perſons. In the Winter happen Head-aches, Vertigo, Apoplexy, Lethargy, Catarrhs, Hoarſeneſs, Coughs; and if any Diſeaſes be contracted in the Fauces, Sides, and lower Viſcera, they are exaſperated: This Seaſon is leſs wholeſome than the Spring, much ſafer than Summer and Autumn. It muſt be obſerved in general; that in Seaſons that are conſtant, and preſerve their own Nature, conſtant Diſeaſes, and theſe not difficult ariſe; but in unequal Seaſons, the Diſtempers prove irregular and difficult: Beſides, if the Year proceed in the ſame conſtitution, that it firſt acquired, we may always expect Diſeaſes, that will be nearly alike. But it muſt be remembred, that Children and young Perſons, are more healthy in the Spring, and Beginning of Summer; old Perſons in the Summer, and for ſome Part of the Autumn, and that in the remaining Part of the enſuing Winter, thoſe are beſt who are of a middle Age.

We may likewiſe preſage various Diſeaſes, as the Seaſons of the Year vary from their natural Conſtitution. For, if the Winter be dry, attended with North Winds, and a wet Spring ſhould ſucceed, with South Winds;

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we may foretel that in Summer there will be acute Fevers, Ophthalmies, and Dyſenteries, eſpecially among the Women, and thoſe Men who are of a moiſt Temperament. But if the Winter be mild, with South Winds and Rain, and the Spring dry with North Winds, thoſe Women who began to be pregnant in Spring, will be in Danger of Miſcarrying; and if they go the full Time, the Children will prove weak, ſickly, and ſhort-lived: Other Perſons will be ſeized with dry Ophthalmies, and Dyſenteries; and if elderly, with Defluxions, which ſometimes kill them. But if the Summer be dry and accompanied with North Winds, the Autumn rainy with Southerly Winds, then the enſuing Winter will bring on Head-Aches, Coughs, Catarrhs, Hoarſeneſs; and in ſome a Tabes itſelf. But if a dry Autumn with North Winds, ſhould have been preceded by a like Summer, Perſons of a moiſt Temperament, and eſpecially Women, are at this Time likely to enjoy a good State of Health: But dry Ophthalmies, and Fevers, both acute and long, as alſo thoſe Diſeaſes which ariſe from the Atra Bilis, will enſue.

MOREOVER, the different Kinds of Weather, as clear, cloudy, rainy, or attended with this or that Wind, denounce the Approach of various Sickneſſes. A clear and ſerene Sky, is the moſt wholeſome. Wherefore the Country is thought to be preferable to the City, champaign Grounds to Mea-

dows, in-land Places to maritime, mountainy to marshy, Land to Water, dry to wet, sunny to cloudy, Noon to Morning, and Day to Night. In the best Air, Health is more certain, and former Diseases, (if there have been any,) are sooner cured. But the best Weather in Winter is that, which is freest from Wind, and in Summer, when the West Wind blows. After serene Weather, that is best which is equal whether hot or cold: That is worst which varies most; upon which Account, the Autumn carries off many People, who have dragg'd on Life thro' the other Seasons. For *Hippocrates* well observes, that if it be one while hot, another while cold on the same Day, we must expect autumnal Diseases: Dry Weather is always wholesomer than rainy. However in this, there arise acute Fevers, Tabes, Ophthalmies, Dysenteries, Dysuries, and arthritick Pains. Rains bring on long and putrid Fevers, Fluxes of the Belly, Epilepsies, and Apoplexies, Quinsies, Palsies, and Cancers. Farther, of the Winds the West and North are wholesomer than the East or South: However, these vary according to the different Climates. When the North begins to blow, we may presage Pleurisies, Peripneumonies, Coughs, and Hoarseness, Suppression of Stool and Urine, and Horrors: But, sound Bodies are by this Wind confirmed; and become more lively and agile. But with the South we must expect, Dimness of the Eyes, Dul-

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neſs of the Ears and Senſes; Vertigo, Heavineſs of the Head, Fluxes of the Belly; and, laſtly, Imbecillity, and Sluggiſhneſs of the whole Body. The others as they approach nearer to North or South, create ſometimes theſe, at other times, rather thoſe Diſtempers.

THESE Things being thus conſidered, we muſt in the next Place, regard the Patient himſelf: Who, if he be not wanting in his own Duty towards his Cure, and obſerves all the Directions of his Phyſician, and is however nothing relieved, is extremely ill: But the Caſe is quite the Reverſe, if, tho' he never act as he ſhould, he yet finds himſelf tolerably well. If the Patient be delirous, it is very bad: He that is ſo, tho' he be pained in ſome Part or other of his Body, yet ſeems not in the leaſt ſenſible of it. In all Diſeaſes if the Patient be *compos Mentis*, it is good. Something likewiſe may be obſerved in his Manners. For it is not ſafe, if a Perſon naturally mild, begin in a Diſtemper to be churliſh; or for any one to commit any Violence, who always had a Command over his Paſſions. But Perſons naturally turbulent, tho' they not only talk very fiercely, but grow alſo frantick in a burning Fever, do not however ſeem to be altogether in Danger. If any one be either talkative or ſilent beyond Meaſure, and contrary to their uſual Cuſtom, it is a bad Sign: For Silence is the Fore-runner of a Coma, or Melancholy, and Garrulity of Deliration. If

the Mind be disturbed with false Images, thro' the Violence of the Disease, it is not without great Danger; as when any one plays with his Fingers, or picks Feathers and Straws from the Bed-Cloaths, or fancies himself beset with armed Enemies, malicious Demons, or other Species of the like Kind. But it is much worse, if losing his Judgment he does not know his Friends and Domesticks; and having had a Desire after any thing, he should immediately forget it.

But Matters are run to Extremes, if besides all this, the Patient neither hears, nor sees, nor moves, the extreme Parts, being already cold and livid.

The Remarks that may be likewise made, upon the Sleep of the Patient, are not inconsiderable: For, when this seems to have encreased the Malady, it is mortal; when to have alleviated it, it is not so. Therefore, if a Delirium be removed by it, it is very good. It is very bad, if there be not the least Sleep at all; for by this Means the infirm Strength is consumed. It is less bad, if not coming on in the Night, it should yet come in the Day-time. And that which comes only in the Day, is reckoned to be better in the morning Hours, even to the third Part of the Day. Equally bad is too much Sleep; so that there seem to be a Kind of Coma, both Day and Night. Too long Sleep in the Night succeeding a Delirium, and which is attended with a Coldness of the extreme Parts,

Parts, portends Danger. A deep Sleep, with a weak Pulse, Delirium and Coldness on the extreme Parts, is mortal. As an immoderately continued Sleep, so also too obstinate a Watching is a bad Sign. For this, unless it follow Pain and Affliction, threatens a Delirium. If a Cough come upon a very long Watching, it is extreme dangerous.

Some Presage may likewise be made from Dreams: For if they run upon any thing, besides the Business of the Day, it shews some Perturbation in the Body. Therefore, if there be any Appearances of Fire, there is a Luxuriancy of yellow Bile. If of Smoke, or thick Darkness, there is a Redundancy of Atra Bilis: If Showers, Snow, Frost, and Hail be presented to his Imagination, there is too much Phlegm. Whoever imagine themselves to be in stinking Places, are loaded with putrid Humours: But if red Objects appear in a Dream, and the Patient fancies he has Cocks-Combs, we may then conclude, there is too great an Abundance of Blood. If the Moon appear in a Dream, it rather denotes the Disorders which are seated in the hollow Spaces in the Middle of the Body: The Sun, those which are in the Middle: The Stars, those which are in the Circumference. If therefore, any one of these seem to be offended, obscured or stopt in its Circuit, the Disease is fixed in that Part, which is influenced by each of them, which is moderate if either Air or Clouds occasion any Impediment to the cœlestial Lights,

Lights; more violent, if Water: But if they ſeem to be ſo far overcome by the intervening Elements, as to vaniſh entirely, there is ſome Danger that the Patient will die. But if, the Obſtacles being diſperſed, the Signs begin to be clear and ſplendid, there is much Hope of the Patient: But if they are carried along with a very rapid Motion, they portend Danger of Madneſs: If they ſeem to deſcend to the Weſt, or to precipitate into the Sea, or down upon the Earth, they likewiſe ſignify Diſeaſes. A diſturbed Sea, notes a Diſorder in the Belly. If the Earth ſeems to be overflowed with Water, it is not good; for it argues a watery Diſeaſe; and the more ſo, if the Perſon fancy himſelf immerged in Ponds or Rivers. It is worſe to have ſeen the Earth parched or burnt up by the Sun, for that is an Argument of great Dryneſs. If any one ſeems to eat or drink greedily in his Sleep, it ſignifies a Want of Meat or Drink. To ſeem to drink pure Water, is good, other Kinds of Drink, is bad. But if Monſters appear, or armed Hoſts, whereby great Terror is ſtruck into the Perſon aſleep, it portends ſome Diſeaſe, as alſo a Danger of Madneſs. to ſeem to fall from a very high Place, threatens a Vertigo, Epilepſy, or Apoplexy, eſpecially, if at the ſame Time the Head be loaded with much Humour.

But having gone thro' the Errors of the Mind, let us, now examine the exteriour Parts of the Patient; among which the Countenance may

may challenge the chief Place: For this points out by undoubted Signs, the Diſorder of the principal Parts. Wherefore in all Diſeaſes we may hope well, if the Patient's Countenance be not much changed from what it was in Health. In violent Diſtempers, a good Countenance leſſens the Dread of them. If in ſlight Diſeaſes, it be bad, it encreaſes it. Extreme Danger is portended, if the Eyes grow hollow thro' the Violence of the Diſtemper, and the Temples collapſed, the Noſe ſharp, and inverted at the Bottom, and cold; if the Ears, and Skin about the Fore-head be tight and hard, the Colour livid or black: Laſtly, a Paleneſs of the Eye-lids, Lips, and Noſtrils. This Kind of Face, if it ariſe from the Violence of the Diſeaſe, and not from an immoderate Evacuation, portends the Death of the Patient within three Days, eſpecially, if at the ſame Time the Stools and Urine are fat. This Countenance is moſt frequent, when the Body is burnt up, and colliquated by a violent Fever; eſpecially if the Patient be young, and uſed to a buſy Kind of Life. But whether an acute, or long and great Diſeaſe, as a Tabes, hath thus defiled the Countenance; and whether this be done at the Beginning or at the latter End, it always preſages certain Death, tho' in all Caſes not equally ſwift.

Much Obſervation may likewiſe be made, from the Hypocondria in Diſeaſes. For if they be equally ſoft on both Sides, without any

any Senſe of Pain they give us great Hopes of a Recovery. But the Danger is increaſed, if they are inflamed, pained, hard and tenſe, if the right and left Side be unequally affected. But if they be ſo ſwelled, as yet to yield to the Fingers when compreſſed, and that without any Pain, they ſignify the Diſeaſe not to be dangerous, but long. If there be a Pulſation in the Veins of the Hypocondria it portends either a Perturbation or Delirium. And it will be equally uſeful in all Diſeaſes to obſerve the Parts about the Navel and Pubes.

For it is good if they be plump, and the Skin ſmooth, but if they be emaciated and waſted away, it is bad.

These Things are alſo obſerved about the Patient's Manner of Lying. If the Patient can lie either on the right or left Side at Pleaſure, with his Legs drawn a little up, and is eaſily turned, he ſeems to be in a fair Way of Recovery. On the contrary, he is in Danger, if he lye gaping and continually ſleeping on his Back contrary to Cuſtom, with his Hands and Feet ſpread out, or (what is worſe) if he ſometimes ſlide down to the Feet of the Bed. And to uncover the Feet and Hands, when there is no violent Heat in them, is bad, and a Token of a very great Diſorder. If he lie on his Face, it ſhews that he is either Delirious, or has ſome Pain about the Belly. No light Malady is likewiſe portended, if the Patient being

being weakned by the Diſeaſe, cannot bear to lie down at all, but chuſes rather to ſit: Or if being averſe to the People about him he turns himſelf to the farther Side of the Bed. Something alſo may be obſerved from the Hands, which if the Patient ſhould often put to his Noſe without any Cauſe, as if he was going to wipe ſomewhat from it, when there is really nothing there, it is reckoned a bad Sign: And the Danger is the ſame, if he endeavour with his Fingers to pluck Flocks from the Bed-Cloaths, or catch at any little Eminence on the adjacent Wall.

NOW as to what reſpects the whole Body, if it be emaciated too faſt in Diſeaſes, or if on the contrary, tho the Diſtemper has continued for ſome Time, it appears in as good Plight as before, it is bad: For the firſt argues a great Decay of Nature, and the ſecond that the Illneſs will be very long. And it is equally pernicious if the Body be one while hot, another while cold, ſometimes of this Colour, at other Times of that. For this is the Mark of a chronick Diſeaſe.

AND we ought alſo to obſerve the ſeveral Functions of the Body in ſick Perſons, and draw uſeful Preſages from thence. Wherefore, a good Reſpiration both in long Diſeaſes, and eſpecially in ſuch as are acute, attended with a Fever, and which ceaſe within forty Days, uſually promiſes a good Recovery: But a difficult one threatens Danger. But that Reſpiration

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is greatly to be dreaded, which is unequal and interrupted; ſo that the Revocation of the Air within the Cheſt ſeems to be double. That is likewiſe bad and ſuffocating, which does not ſuffer the Patient to lie down, but forces him to riſe out of Bed: In which the Thorax and Scapulæ are very much elevated. And this accompanies an obſtinate Catarrh, Quinſy, Suppuration, or crude Tubercles of the Lungs. If it be large and frequent, and attended with a hot Vapour thro' the Mouth and Noſtrils, it argues a vehement Burning without any Obſtruction. Wherefore, this happens moſt frequently in burning Fevers. But if it be frequent and ſmall, it argues either an Imbecillity of Strength, or at leaſt, ſome Impediment in the Lungs. Wherefore it is generally obſerved to be ſuch, in Inflammations of the Lungs, Sides, Diaphragm, Liver or Spleen. But if large and rare, at very long Intervals, it denotes Madneſs. That likewiſe threatens Deſtruction, wherein the Breath comes cold out of the Mouth and Noſtrils: When the Breath is ſcarcely diſcharged by the Mouth, but almoſt wholly by the Noſtrils, eſpecially if the Sides of theſe are obſerved to be contracted and dilated, this being a certain Sign of an oppreſſed Strength. When Death is impending in Fevers, the Reſpiration is deep, quick and difficult.

I SHALL now ſay ſomething concerning the Pulſe, which, ſince it is the Meſſenger of the Heart and Life, may be very inſtrumental

mental towards our forming certain Preſages. For if it be very little changed from its natural State, and continue ſuch, it ſhews a Firmneſs of the bodily Strength, and gives us Hopes of a happy Recovery. That is reckoned the beſt, which is a Medium between large and ſmall, between ſwift and ſlow, between quick and rare, between ſtrong and languid, between ſoft and hard, between full and empty, and which retains a juſt Proportion, Equality and Order between the Strokes. This may from various Cauſes recede from its natural State, as the Strength of the Patient, or the Artery is affected. A large Pulſe follows from an Increaſe of the native Strength: But before it degenerates from its natural State, and becomes large, it is firſt that which is the eaſieſt to Nature, namely, quick, and after ſome Time ſwift. If the Patient be infirm, the Pulſe ceaſes to be large, and becomes quick, ſmall and languid. If the Artery be hard the Pulſe cannot be very ſwift. On the contrary, the ſmall one proceeds thus; if the Strength be infirm, it is firſt rare, as the Cauſe of the Imbecility encreaſes, it is ſlow, and then it begins to be ſmall. But the Slowneſs and Rarity may likewiſe ariſe from the Dryneſs of the Artery. A hard Pulſe likewiſe denotes the Hardneſs, and a ſoft one, the Humidity of the Artery. Wherefore this is peculiar to a Coma, Lethargy, Peripneümony, ſoft Tumours of the

the Viſcera, Dropſy, and the like. A robuſt and vehement Pulſe gives the Patient ſome Hopes of a Recovery: A languid one threatens Death. But it muſt be noted, that there is not ſo much Danger in very large, ſwift, quick, vehement, or ſoft Pulſes, as in thoſe which are very ſmall, and very ſlow, rare, languid and hard. For theſe never exiſt without great Danger. Of the former Claſs, that is the beſt, which is moſt vehement, and then that which is largeſt: And the ſofteſt is the worſt. But of the latter Claſs the worſt, is the moſt languid, after that the ſloweſt, rareſt, and then the ſmalleſt. Languid Pulſes always denote a Decay of Nature, which Decay, if it be contracted from the Length of any Diſeaſe, renders the ſame Pulſe ſmall, rare, and ſlow if there be no Fever, but quick and ſwift if there be one. When this Imbecility is occaſioned by too much Pain, Watching, or ſudden Evacuations, beſides being languid, the Pulſe is ſmall, ſwift and quick. But if Nature itſelf be not decayed, only impeded and oppreſſed by ſome Means or other, as it happens in great Obſtructions of the larger Veſſels, and alſo in a ſudden Conflux of Humours on the Præcordia, and laſtly in peſtilential Fevers, the Pulſe is extremely unequal, and that continually, and is beſides its Languidneſs, ſmall, ſlow, and rare; altho' ſometimes for a few Strokes it appears either vehement, large, ſwift or frequent, wherein conſiſts its greateſt

eſt Inequality. And the Imbecillity is always greater, when the Pulſe intermits, and greateſt of all, when the Pulſe fails. If it does not return, but there is a total Privation of it (which the *Greeks* call Ἀσφύξια) it is very dreadful, and the Harbinger of certain Death. This happens to moſt Folks juſt as they are giving up the Ghoſt, to ſome a few Hours, and ſometimes (which may ſeem wonderful) even ſeveral Days before. But there is leſs Danger in that, which decaying gradually is termed by the *Greeks* Μύρμηξ. This is one while reciprocal, another while not ſo: However, it is always terrible. Tho' if it does not reciprocate, it is judged worſe than the deficient that does. No ſmall Danger likewiſe attends an intermitting Pulſe, which the longer it reſts from Motion, is the more dangerous: And when the Intermiſſion exceeds the Time of two Pulſations, it denounces Death, unleſs this Kind of Pulſe be at any Time natural to the Patient: Tho' old Perſons affected with a long Fever or Aſthma, and ſometimes alſo Children have been obſerved to live after an intermitting Pulſe, which is not credible of any one of a juvenile Age. Much more formidable than this, as alſo a much ſurer Meſſenger of Fate, is that which intermits in one Pulſation. An intercurrent Pulſe promiſes a good Criſis of the Diſtemper, and future Recovery: Eſpecially if the other Signs likewiſe anſwer. The dicrotick or intercepted Pulſe ariſes from

a hot and very putrid Humour, and the Powers of the Body not wholly invalid. The undulating Pulse denotes Diseases that drench the Body with too much Humour, namely, quotidian Fevers, and those continued ones which debilitate the Patient with perpetual Sweats, by the *Greeks* called Τυφώδεις: As also that Kind of Dropsy which they call Λευκοφλεγματία. As well in these Fevers, as also in others, the undulating Pulse precedes a critical Sweat, if there be several high and strong Strokes, as also any Signs of Concoction. With this Pulse there can be no Inflammation of the Viscera, nor hard Tumour in them without Pain, and less a Distension of the Nerves or Dryness. It is not safe if this Pulse turn into a vermiculating one, which differs from that only by its Smallness. For then the Strength, tho' it is not yet decayed, yet it gradually wastes away. This vermiculating Pulse attends Nature worn with Evacuation, and also that Disorder of the Lungs, in which they being wholly putrid are over-loaded with Humours, especially if at this Time the bodily Strength be likewise infirm. What I have said of the undulating Pulse must also be said of that which vermiculates, that they both require a soft Artery: Neither of them can be found in a Tabes, Inflammations, nor hard insensible Swellings of the Viscera, nor in Suppurations in the Thorax, no, not even when Death is at Hand. No Fever, but what is very slight

ſlight and ſlow, exhibits a vermiculating Pulſe: Becauſe the Heat increaſing does not permit a ſlow Diſtenſion of the Artery. Wherefore, a vermiculating Pulſe occaſioned by an immoderate Evacuation, if a Fever come on, is removed. But as the undulating Pulſe, if it become weaker, is ſucceeded by that which vermiculates, ſo this is ſucceeded by one that formicates. Wherefore this portends more Danger than that: And in ſlow Fevers, which have exhauſted the Strength, not by their Violence, but by their long Continuance, it is the Meſſenger of Death. Both this as well as that which vermiculates, when they ariſe from thoſe Cauſes which ſuddenly relax the Strength, and may be corrected again without any very great Difficulty, are not ſo very dangerous. To which Caſe they are liable who faint away with the Heat of a Bagnio, or whoſe Strength ſuddenly ſinks under an immoderate Diſcharge of Blood either from a Wound or the Noſtrils. But a caprizating Pulſe denotes natural Strength, and gives us Expectations of a perfect Recovery. Unleſs the laſt Part of the Diſtenſion ſhould be languid, for then the Conflict between Nature and the Diſeaſe will be doubtful. A hectick Pulſe is more pertinacious and denotes the Diſtemper to be long, dry, and not eaſily cured: It is peculiar to Perſons who are tabid, or emaciated by ſome means or other. A ſerrate Pulſe follows Inflammations, and eſpecially of the nervous

Parts, wherefore it is likewiſe familiar to an Inflammation of the Side. This is ſo much the worſe, the more manifeſt it is: Which is occaſioned by too great a Tenſion and Hardneſs. It is an Attendant of crude internal Tubercles, which ſometimes carry the Patient off, when there is not much Strength: Unleſs they timely ſuppurate. A very convulſed Pulſe ſeldom happens, but then it is dangerous, particularly if it ariſe after great Evacuations, Hunger, burning Fevers, and the like Diſaſters. That is ſafer, which happens immediately upon the Beginning of any Diſtemper. It likewiſe attends inflammatory Diſorders of the Brain, and that particular Kind of Madneſs, which is called Phrenitis; as alſo the Epilepſy, wherein the Patients die with a Heat in their Bodies, the contrary of which happens in a Syncope. A vibrating or turbulent Pulſe imports a Conflict between Nature and the Diſeaſe, in thoſe Perſons who labour under great Inflammations, or very tenacious Obſtructions, and alſo Diſtenſions of the Nerves. A trembling Pulſe, which is truly ſuch, or occaſioned by a Tremor of the Muſcles of the Wriſt, if it ariſe from the Violence on the Diſeaſe and not from Nature, uſually preſages a Syncope and Death. This is always languid and ſmall. Order in good Pulſes ſignifies Good, in bad (tho' ſome conſiderable Men deny this) Ill. And Order is always the more condemned, the worſe the Pulſe is at the ſame Time. It muſt be noted

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in general, that the ſame Pulſe is not found in all dying Perſons. For in ſome it ceaſes entirely before Death: In others it fails juſt at the laſt Gaſp: In others it is extreme quick, ſmall, and languid: In ſome it leſſens gradually: In others it is intermittent: In ſome formicating: And in others again vermiculating.

THESE Things being conſidered, we muſt in the next Place inquire into the Appetite, Loathing of Food, and the Patient's whole Method of Diet, and from thence form Preſages and Judgments of Diſeaſes. In all Diſtempers, it is a Sign of Health, if what Meats and Drinks are offered to the Patient, agree well with him: If the contrary happen, it is dangerous. If bad Food be taken in, and the Patient find himſelf nothing the worſe, the Diſorder is tolerable: But if with giving him every Thing that is proper, the Patient be not only not relieved, but alſo offended; this is a Mark of a difficult Diſeaſe. If any one have an Averſion to Food at the Beginning of his Diſtemper, or elſe about its State, and there is ſtill a ſufficient Degree of Strength, he ought not to be terrified, But thoſe Loathings of Food which ariſe at the Declenſion of Diſeaſes, or at other Times, when the Strength is very invalid, are perilous. They are very bad in any long Illneſs; and threaten a Relapſe to Perſons on a Recovery, eſpecially if they are at the ſame Time attended with frequent acid Belches. After any Diſeaſe, if the

Patient does not profit, either in Body or Strength, by the Food which he covets and takes, it is bad: For more is eat than is ſufficient. But if the ſame happens to one who eats moderately, we muſt note that he ſtands in need of ſome Evacuation; and if he be not relieved by this Kind of Remedy, he is in Danger of a Relapſe. For that is likely to happen when any thing is left in the Body after a Criſis. Beſides, even in the Diſeaſe itſelf, whoever eats well in the Beginning, and is not profited thereby, is at length generally troubled with a Loathing of his Food: On the contrary, he that firſt uſes great Abſtinence, and afterwards covets Food, is ſooner freed from his Diſtemper.

Now follows the Obſervation of thoſe Things, which are thrown out of the Body, the Spitting for Inſtance, Excrements of the Belly, Urine, and Sweat; all which, when they are diſcharged but weakly and in ſmall Quantities, are bad: And the more ſo when they all come out much at the ſame Time. Beſides, they portend great Danger, if they be likewiſe attended with ill Signs: If not, Length of Illneſs. It is almoſt certain, that whatever comes away, of what Subſtance, Quantity or Quality ſoever, as alſo in whatever Manner, or Time, generally promiſes a Recovery, if it be done after any Signs of Concoction, if on a critical Day, and with any Relief to the Patient: What is evacuated in a contrary Manner, is very bad and fatal.

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As to what is ſpit or thrown up by Vomiting, it has been conſidered in the former Book; wherefore in this Place we ſhall attend only to the Stools, Urine and Sweat.

THOSE Stools then are the beſt, that are ſoft, coherent, compact, yellowiſh, and which do not exceed in Scent the like Stools of a Man in Health: Laſtly, and which anſwer exactly to the Quantity of Food taken, and are voided at the ſame Time as in Health. But they are bad, that are too hard or liquid, that ſoon ſpread abroad, or are of an unequal Conſiſtence: They are alſo not good, that are either too yellow or white: For this argues Crudity, and that ſome bilious Diſorder: Tho' the yellow are not ſo bad in the Decline of the Diſtemper, the Matter being going off which occaſioned them. Green Stools are likewiſe bad, as being produced from æruginous Bile. Black, denote *atra Bilis*, and livid ones, a violent Coldneſs in the internal Parts. Fat Stools are likewiſe not ſafe, as alſo thoſe which are viſcid or tenacious. For in both (unleſs the like Things have been taken in) the Body melts away. Thoſe which are very fœtid, are likewiſe not ſafe, as ſignifying great Heat and Putrefaction. Thoſe that are ſpumous, are not good, or thoſe which are flatulent and light, like Cow's Dung. Thoſe which are ſpumous, denote alſo a great inward Heat. Add to this, that thoſe are likewiſe noxious, that are either too ſmall, or too large: In

like Manner thoſe that are various, ſuch as are ſtrigmentous and very bilious, bloody, and purulent: As alſo thoſe that are porraceous and black, are bad. They are worſe which have the ſame Scent with thoſe of a Child. In the Beginning of any Diſeaſe, if *atra Bilis* be voided either by Stool or by Vomit, it is fatal. In acute Diſeaſes ſpumous and bilious Stools are very bad. If pure Blood be voided, eſpecially when preceded by any Pains, it is dangerous. Liquid Stools, whether they happen frequent or gradually, are hurtful: For the one renders the Patient too weak, the other too watchful. Watery Stools in acute Diſeaſes are bad; and the more ſo if there be no Drought. Theſe are bad in Perſons who are comatous and torpid; as alſo in thoſe whoſe Bellies are ſwelled. Cold Sweats after a liquid Stool are bad, and thoſe Stools that reſemble black Blood, whether with, or without a Fever, are very bad. Thoſe are alſo generally fatal, that come away inſenſibly from the Patient, or that ſuddenly and without any Reaſon flow plentifully from a Perſon who has been weakned by any long Illneſs. I muſt likewiſe ſay ſomething, by the way, concerning the Flatus of the Belly; which 'tis better if it break away without any Noiſe: For if it ſound in acute Diſeaſes, it argues a violent Pain, or elſe a Delirium. It is alſo bad, if the Flatus be impeded, juſt as it is upon

upon the Point of breaking forth, and ſtill worſe if it turn upwards.

I NOW proceed to the Conſideration of the Urine; which is good, if it be of a golden Colour, moderate Subſtance, and in Quantity proportional to the Drink, and has a white Sediment light, and pointed. But white Urine denotes either Crudities, or great Obſtructions in the urinary Paſſages. It portends in acute Fevers either a Delirium, or elſe that Kind of Madneſs, which the *Greeks* call Φρενῖτις. In like Manner, if it do not vary for any conſiderable Space of Time, it preſages cold Diſorders of the Head, as Vertigo, Apoplexy, Epilepſy, and the like: It alſo argues Loathing of Food, arthritical Pains, and Palſies. If the Urine be milky or like Whey in the Beginning and Increaſe of Fevers, it indicates a Load of putrid Matter and the Strugggles of Nature. But if ſuch Urine ſhould be diſcharged for a long while together, it denotes cold and chronical Diſeaſes. Thin, diluted and aqueous Urine is the Sign of a long Diſeaſe: And if it continue long in ſuch a Diſtemper, when the other Signs denote Health, it ſhews that there will be either Pain or Abſceſs in the Parts below the Diaphragm: This Urine is very bad in Children. Either golden, yellowiſh, or citrine, denotes, as I have already mentioned, a due Concoction, and if we regard the Colour, are in a Medium between them all. After theſe follow yellow, and

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then red, which are Proofs of an increaſed Heat. A clear red, which is alſo called Flame-coloured Urine, indicates a burning Fever, or an immoderate Heat in the Liver; and if this have no Sediment or Cloudineſs in it, it marks the Beginning of a Fever, and the Crudity of the Matter. And if it be diſcharged in this Manner in acute Fevers, for a long Time, it threatens Danger of Death, even before they can acquire any Maturity. But that which is red, and alſo thick and obſcure, ſuch as is uſually voided in obſtructed and vitiated Livers, and at the Decline of febrile Paroxyſms, denotes either yellow, red, or vitelline Bile. Therefore in a putrid Synochus, this Kind of Urine is hardly ever voided. After the red, follows that which is either of a Wine or Grape Colour: That denotes aduſt Blood, and this torrefied Bile: Both of them reſemble a black Grape in Colour. And for the moſt Part, if theſe are voided in this Manner for ſome Time, they foretel a Jaundice. But that which is green is a Sign of the Bile's being extremely corrupt: To which if a violent Thirſt, and burning Heat be added, there is Danger of a Diſtenſion of the Nerves. But a glaucous or pale azure Urine is produced from a cold and dry Humour. Livid Urine indicates the Periſhing of the native Heat: Tho' it may ſometimes follow upon the receiving Stripes and Blows. Black Urine, if it ſucceed that which is red and green, is a

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Mark of extreme Heat; but of extreme Coldneſs after the azure and the livid. In both Caſes there is Danger of Death, and this ſo much the greater, the leſs there is of the Urine, and the blacker its Sediment. But if any Diſeaſe ariſing from the *atra Bilis* hath preceded, as a Tumour of the Spleen, Quartan, Melancholy, and the like; then indeed black Urine, eſpecially at their going off, gives us good hopes of a perfect Recovery. Bloody Urine, that, for Inſtance, which when cold depoſites a Sediment like concreted Blood, ſhews the Kidnies to be abraded by ſome Stone; eſpecially if they have not been injured by a Fall or Blow. That Urine which is of a bad Colour, is the leſs bad, the more copious it is. After the Colour of the Urine, its Subſtance is next to be obſerved. If this be thin, it imports Crudity and Obſtructions; eſpecially if at the ſame time it be alſo diluted, as it uſually is in Quartans, and violent nephretick Pains. If this Urine be long diſcharged in Fevers that are long, uncertain, and not great, it is plain that the Spleen is affected. But thick Urine denotes a Copia of crude Humours, which for the moſt part oppreſs the hollow Part of the Liver; as alſo the Inteſtines and Ventricle. The moſt crude of all, is the thin and watery, which continues ſo; leſs crude than this, is the thin which afterwards incraſſates; this is followed by that which is voided thick, and continues ſo; which when the ſtrength is firm, preſages

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a long Sickneſs, when invalid, Death. Again, that Urine is thought leſs crude, which is voided thick, and afterwards depoſits a Sediment, inaſmuch as this notes that the Diſtemper will be ſhort. But all theſe Kinds argue Crudities, and the Beginning of a Diſtemper, and that this, (if they continue any conſiderable time,) will be long and difficult. If the Urine be voided thick, at the firſt Coming on of a Fever, it ſhews a Load of matter, Imbecillity of Strength, and Danger. The thick and white is the product of crude Phlegm. If this flow copiouſly in long and difficult Fevers, which were going to run into an Abſceſs, it frees the Patient from Abſceſs and Pain. Thick and reddiſh Urine, eſpecially if it have a like Sediment, portends the Diſeaſe to be ſafe, but long: But thick and throughly red Urine, ſuch as is ſeen in continent Fevers, implies a Plenitude of Blood: However this is not a certain and perpetual Rule. For oftentimes ſuch Urine is voided, when there is no Abundance of Blood, as in a Quartan, and tertian Intermittent, as alſo in the Jaundice. But if without this, the Urine continue thick and red to the fortieth Day, in a Fever, this cannot be ſolved before the ſixtieth. Thick and black is wholly deſtructive, and ſo much the more ſo, the leſs Quantity it is diſcharged in. Yet it may ſometimes be ſafe and ſalutary, when in the Decline of Diſeaſes, (as I before mentioned,) ariſing from the Atra Bilis, the noxious Humour is thrown off by the Strength of Nature.

Nature. The thicker the Urine is in acute Diſeaſes, ſo much the worſe it is: And the Signs of Crudity, in the Conſiſtence of the Urine, ought to terrify us, more than thoſe that are in the Colour. That Urine, which when ſhook reſembles Oil in its Lentor and Thickneſs, ſhews the Body to be melted either with a Tabes, hectick Fever, or Dropſy. If Urine that was firſt ſplendid, grow thick in the external Cold, and load the Urinal with a white and lentous Sordes, and being again diſſolved by the Fire, it recovers its original Colour, it ſhews in acute Diſeaſes, that the Concoction is begun; in other Caſes it is not much to be regarded. But if the Urine be voided thick and turbid, like that of Cattle, and is not diſſolved by the Fire; and many Corpuſcles conſiſting of Pus or Mucus, float in it, which upon ſtanding, deſcend like a thick Sediment, the reſt of the Urine growing then generally clear; we may conclude, that there is either an Ulcer in the Kidnies, or Bladder; and that occaſioned chiefly by a Stone: Or, that theſe Parts are ſtuffed up with a crude Humour. But if theſe Parts be ſound, and the Urine thus turbid; it denotes Abundance of thick Humour in all the Veſſels, and long and difficult Diſeaſes; particularly Pains of the Head, according to *Hippocrates*, either preſent, or near at hand. Beſides, from hence either a Lethargy or a Coma, may after ſome Time enſue. Oftentimes, when a Quartan is ſolved, as alſo Diſeaſes of the Liver and

Spleen,

Spleen, and when an Abscess is inwardly broke, turbid Urine is voided of a sudden.

FARTHER, if the Urine be so confused, that it can neither be dissolved by Fire or Rest, and does not seem to have any thing either suspended or subsided in it; it is a Mark of continued Fevers, and those very dangerous and malignant. Besides, it will not be amiss to observe also the Quantity of the Urine. For if it be much, it may either indicate Abundance of serous Humours (as in a Dropsy, and Diabetes,) or a Consumption of the corporeal Substance, as in colliquative Fevers, or a very small Discharge by Stool. For *Hippocrates* well remarks, that the voiding of much Urine in the Night, is followed by a small Evacuation by Stool. Persons who drink but little, or have suffered very large Evacuations in some other Part of the Body, or are exhausted and dried up by too much Heat and Labour, make but little Water. Oftentimes a Paucity of Urine teaches us, that the Passages are obstructed, either with a thick Humour or a Stone. In acute Fevers, whatever Kind of Urine comes away but in small Quantities, thro' the Violence of the Disease, the Defect of Moisture, or the Infirmness of the expulsive Faculty, denotes certain Death. That Urine which is one while in small Quantity, another while again copious, and sometimes wholly suppressed, in acute Diseases, is very bad: In chronical Distempers it is a Mark of their

long

long Duration. There is something likewise in the Scent of the Urine: For that which stinks, and is at the same time white and thick with a purulent Sediment, indicates an Ulcer in the Kidnies, or Pudendum. But if this by standing, deposit a Mucus, and was made with much Pain, it shews that there is a Stone in the Bladder. That Fœtidness which does not proceed from these Parts, but such as are higher up in the Body, whether it be in red and turbid Urine, or (what rarely happens,) in that which is thin and clear, it is always a Sign of some violent Putridness. I shall now proceed to the Contents of the Urine, which are not of one Kind. The Sediment, which is by the *Greeks* called Ὑπόστασις, shews the native Heat to be in a good State; and that so much the more, the sooner it is observed after the Urine is voided. It is not very difficult, to distinguish the Sediment, from that Sordes, which descending from the Kidnies and Bladder, troubles the Urine, and afterwards subsides in it, into a Kind of Crassament. That which is suspended in the Middle, (by the *Greeks* termed Ἐναιώρημα,) argues a greater Decay of the native Strength: And a Cloudiness or Nubeculæ argue it still to be much weaker. When it is extreme weak, 'tis signified, by the Urine's having no Sediment, Enæorema, or Nubeculæ in it: And this Case is very terrible in sick Persons; tho' it may sometimes happen, to those who are in Health, without any great

great Inconvenience. Farther, that Sediment is beſt, which ſubſiding to the Bottom of the Urinal of a moderate Conſiſtence and Quantity, is white, light, and equal, broad at Bottom and acuminated at the Top. The Enæorema and Nubeculæ are likewiſe beſt, that are white, light, and equal. The Enæorema is not ſo good as a Sediment; and both are better than Nubeculæ. If the Contents of the Urine be thin, it argues a Crudity and the Beginning of a Diſtemper; if thick, it ſhews there is much unconcocted Matter; tho' this often attends the Criſis of a long Illneſs. Red Contents, are produced by Bile and Heat. Lead-coloured, livid, and eſpecially black, denote the Oppreſſion of the native Heat. The Contents are good, the more they ſink downwards, yet better ſtill, if they do not quite touch the Bottom of the Urinal. Thoſe Diſeaſes, wherein the good Contents are ſooneſt obſerved in the Urine, ſooneſt come to a Criſis. The lower Contents are always more eligible than thoſe that float at the Top. That Urine which exhibits a reddiſh Cloudineſs on the fourth Day in a Fever, ſolves it on the ſeventh: If ſo be the other Symptoms anſwer well likewiſe. Thin and bilious Urine, which appears to be one while better, another while worſe, is a Sign of a long Illneſs. That Urine which is unexpectedly maturated, both in Colour, Subſtance, and Contents, is always to be ſuſpected in Diſeaſes, eſpecially ſuch as are

acute.

acute. If there has been any good Sediment in the Urine, and it should be discontinued on a sudden, Pains and Alterations are signified: In irregular Fevers, black Clouds presage a Quartan. We must in the next Place, observe those things that are mixed with the Urine. If there be any Semen in it, it is thin and light, and always floats in the Urine; but Phlegm is thick, tenacious and coherent. Pus, if the Urine be shook, is dissolved, and diffused every Way. Both these subside with Standing. Farther, if there seem to be any Abrasions as it were in the Urine, it shews that the Juices in the Veins are adust. If there is any thing like Hairs, it denotes a burning Heat in the Kidnies, and that the Humour is tenacious. Tho' Filaments like white Hairs, are often observed in a Gonorrhæa, and the Fluor albus. If certain small Caruncles begin to float in thick Urine, they denote an Ulceration in the Kidnies. And a Scabies of the Bladder is signified, when certain furfuraceous Substances are voided together with thick Urine. If these appear in a thin Urine, they denote a colliquative feverish Heat. If any Sand or Gravel be voided with the Urine, it argues either a Stone in the Kidnies, or Bladder. If in a fœtid Urine there be either Pus, or scales, the Bladder is ulcerated; if not, a burning Fever is signified by the Squamulæ. This scaley Substance is safer, because thinner, than that which is

furfuraceous. If any thing fat, or like the Web of a Spider, float upon the Surface of the Urine; or if (which is lighter) there appear certain Points like Oil dropt thereon, we may conclude that the Body melts with a very ardent Fever, or at leaſt with a Hectick, or Tabes. And if theſe come cloſe together, and in a ſhort Time, when the Kidnies are ſeized with Heat, they begin to colliquate. Oily Urine is extreme bad before a Rigor. The Surface of the Urine ought alſo to be regarded: For if this exhibit a better Colour than the reſt of the Urine, it pronounces a Recovery; if a worſe, Danger: A thin and white Surface, is the Mark of a phlegmatick Body: A browniſh, of a temperate one: A red and flame-coloured, of a bilious and ardent one: Livid and black, of a melancholy one: Wherefore both theſe are peculiar to the Epilepſy and Melancholy. If there be a large entire Ring of Bubbles on the Surface, it denotes a Pain in the Head; and that the more ſo, the deeper-coloured they are; and the leſs, the more pale. Bubbles diſperſed over the Surface of the Urine, ſignify nothing concerning the Head; but only pronounce Crudity, Obſtructions, and a Decay of the Heat. Thoſe Perſons in whoſe Urine, tho' thin and free from any Sediment, Bubbles are obſerved, are generally affected with a long and violent Obſtruction of the Kidnies: When it is better, that theſe Bubbles begin to appear in a thick Urine.

Bubbles

Bubbles that are larger, and spread wide over the Surface of the Urine, mark a Diminution of Pain. And there is thought to be some Defluxion, if the Bubbles which appear like small Grains in the Surface, should sink down, when the Urine is shook, and then rise up again to the Surface. It must be noted in general, that the Irregularity of Heat is signified by the Colour of the Urine; the Disorder of the Humour, by its thick or turbid Substance; the Putridness, by it's Confusion; and the certain Knowledge of the Part affected, by what is mixed with it.

In the last Place, I shall say something concerning the Sweat; which is certainly good, if it break forth over the whole Body, after any Signs of Concoction: In like manner, if it flow plentifully in intermittent Fevers, at the Going off of the Paroxysm, or in the Crisis of continued Fevers, it either terminates, or greatly alleviates the Distemper: Also, that which is thrown out, as it were in Drops, and evaporates; and that which succeeds a Discharge by Stool, and which, when the thicker Part of the morbid Matter is already carried off, exhausts the thinner Part that remains. But the contrary to these are bad; especially if they are thrown forth only about the Head, Fore-head, and Neck. And these are extreme bad, if they are likewise cold. For in acute Fevers they indicate Death, and in such as are milder, long Sickness. Those also that are not continued, but interrupted, are

bad; as alſo thoſe that are in too great a Quantity, and which do not leſſen the Diſeaſe; for it is then plain, that this will prove very long. If a Horror enſue upon Sweating, it is not ſafe. In a Decay of the Strength, and a Syncope, it is very bad, if the Forehead be damp with a ſmall clammy Sweat: But if the Pulſe likewiſe fail, it denotes ſudden Death. Copious Sweats, whether hot or cold, flow continually; the cold pronounce the Diſtemper to be very violent, and the hot argue it to be much milder. For the moſt Part it happens thus: That when the Sweat is ready to break forth, it is firſt thrown out by the Head, and then gradually by the other Members. And generally the Sweat riſes more abundantly from the back than the fore, from the upper than the lower Parts of the Body. They are likewiſe thrown forth more frequently, when the Patient is aſleep, than when awake.

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